Leipzig August 1829

THE LONDON

Medical and Physical Journal.

2 OF VOL. XLII.] AUGUST, 1819. [NO. 246.

"For many fortunate discoveries in medicine, and for the detection of numerous "errors, the world is indebted to the rapid circulation of Monthly Journals; "and there never existed any work to which the Faculty in EUROPE and "AMERICA were under deeper obligations than to the Medical and Physical "Journal of London, now forming a long, but an invaluable, series." RUSH.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

On Transfered Irritation. By DR. KINGLAKE.

MEDICAL practitioners of the earliest period have noticed the transferable property of local irritation from one part of the animal frame to another. It seems to be a law of the animal economy, that morbid excitement relieves itself either by exhaustion, by diffusion, or by acting with predominant violence on a part more or less remote from that which may be primarily affected. The most salutary and direct termination, is by exhausting the degree of vital power on which the morbid action depends. When this takes place, a spontaneous or natural cure occurs; and, happily for mankind, by far the largest portion of disease that arises, ends in this mild and desirable manner. When the diseased action lingers and acquires an habitual continuance, or when by its violence it disorganizes in any measure the healthy structure of the part in which it presents, it becomes too untractable to give way to the salutary influence of exhaustion, but remains the effect of an accustomed or vitiated action.

The diseased state, in whatever circumstances it may occur, is a degeneracy from the natural condition of life; and it is at all times desirable that it should terminate with all possible speed. To neglect it, may be hazardous; but to protract it, is to incur an injury, the extent of which can neither be foreseen nor defined. It is the province of the healing art, to remove obstacles to either natural or artificial modes of cure, and to furnish every facility for accomplishing the salutary object. Cases are often so circumstanced as to require seasonable assistance; and, if it be unduly delayed, the opportunity for benefiting may be either lost or rendered unavailing by such omission. It should be remembered, that, when a disease has once arisen, it becomes of itself a stimulus for its own continuance, if it be not speedily dissipated, either by exhaustion, diffusion, or

transference. If suffered to remain, it will be so located and established in the situation where it originated, as to be at least durable, if not positively incurable.

The cause of disease must, in the first instance, be sufficiently powerful to supersede or overcome the healthy state; but it is not necessary that the morbid cause should be incessantly applied to sustain the effect. The diseased state itself will be fully sufficient to carry on its own action, until it be either spontaneously worn out, or counteracted and subdued by adequate remedies. Febrile affections, derivable from the usual sources of epidemic, endemic, or sporadic diseases, are independent of their respective causes, whether from marsh miasma, aerial impurity, or personal contagion. After the fever has once occurred, neither the continued nor renewed application of the cause has any additional effect. The progress of the disease is the same, neither increasing nor diminishing in violence by the presence or absence of the morbid cause by which the disease was induced.

Gouty or inflammatory excitement of the ligaments and tendons is at present almost the only disease that is regarded as salutary, and which has obtained, in some measure, both a medical and popular sanction for its existence, its encouragement, and indefinite duration. The exanthematous affections have likewise somewhat shared in the leaven of remedial virtue. It is difficult to imagine how it could be supposed that an afflicting form of disease could ever prove beneficial; but, if the solecism be admitted, it is perhaps less extraordinary than the notion that one disease should vicariously perform the services of another. It is yet to be satisfactorily explained, how it is possible that disease can improve the healthy state! To say that previous disease existed, and that inflamed ligaments and tendons, or eruptions on the surface of the skin, removed that disease, is no more than stating an extension of morbid action to those several parts. But, does not this position take for granted what is not proved, and which can neither be logically insisted on, nor rationally conceded? Both arthritic and cutaneous excitement are frequently occurring without any previous sense of ailment; and, if the degree of violence by which they may be attended should disorder the general frame, or occasion on any particular part of the system a stronger impression than on another, it must be considered as the effect, as the diffusion of these local affections, and not as an integrant part of the original disease itself. Local disease is one thing, its dissemination is another; and it should be the leading object of medical endeavour to restrain and extinguish it at the place of its origin or birth.

Phrenitis, peripneumonia, carditis, gastritis, &c. should not

be suffered to extend the morbid excitement by which they are respectively characterized, to the system at large. It should, when possible, be instantly subdued, and not be allowed to augment and diffuse itself over the general frame. Disease strengthens with its growth, "*vires acquirit eundo;*" and, if permitted to proceed, will ultimately become much more formidable than would have been the case, if seasonably repressed and subdued.

The extinction of gouty and pustular inflammation, before the heart and arteries may be excited by its stimulating influence, and consequently before the visceral functions be disordered, is surely preferable to having to cope with all these diseased effects. If remedies were promptly efficient, diseases would be advantageously crushed in their bud; time would not be afforded for unfolding their full form and violence. "*Venienti occurrite morbo,*" should be the assiduous attempt; and, whenever practicable, should not be omitted. Prevention is better than cure; and the means for effecting the former are much less fallible than those which offer for accomplishing the latter. Morbid irritations are various in form and afflicting in severity; but the sensations of pain in a distempered state of nervous power, are almost infinite, and not less distressing. When the vital action of the nervous system is so disordered, in respect either of due energy or regular distribution of sensorial power, every variety of feeling may be experienced; and, in the endless modification of them, they may be selected and grouped in such a manner, as would characterize any description of complaint that could be either imagined or stated. It is highly probable that, in this exquisitely sentient state of the nervous system, even the actions of life themselves are felt, and that they are really attended with acute suffering. It is not unusual to hear patients, thus overwhelmed with morbid feeling, complain of darting, creeping, drawing, twisting, rending, motions in various parts of the frame, passing and re-passing with electric celerity from one situation to another. If, in such circumstances, either the muscular, the ligamentous, the tendinous, or membranous, structure should, from being more particularly excited by the stimulus of diseased sensation, become the seat of either preternatural irritation or of inflammatory action, corresponding disease will be produced, with which the heart and arteries may so sympathise as to induce general affection.

Much expression of that sort of pain which arises from a morbidly sentient state of the nervous system, is often made without its reality being at all evinced by an increased action of the arterial system; and, as long as this is the case, the animal functions remain for the most part undisturbed; digestion and

nutrition proceed, and no immediate danger of life, in circumstances otherwise as deplorable as generally irremediable, can be apprehended. It is in this distressing state of distempered sensibility, (of which the quick recession of the sensitive-plant on the slightest touch is but a faint emblem,) that much imaginary complaint is made, and stated with a precision that would become the accuracy of mathematical demonstration. These actual pains and feeling descriptions often lay the ground of fallacious speculations, in estimating the true nature of diseases. Arthritic inflammation, occurring in such circumstances of diseased sensation, will, in the imagination of the patient, promiscuously dart, with explosive rapidity, piercing pain to the stomach, brain, heart, or some other vital organ, to the great terror of both patient and spectator. A real connexion, a physiological sympathy, is supposed to subsist between the gouty joint and the pained viscus, and a destructive transference of disease to the vital organ is dreaded! The utmost earnestness is shown in endeavouring to station the menacing enemy on the affected joint, and thus to ward off the deadly blow that might otherwise reach the unhappy patient. The pustular inflammation induced by rubbing on the region of the chest tartarized antimony, formed into an ointment with hog's-lard, recently excited in the sensations of a patient whose nervous system was agonized by excess of feeling, a severity of pain, that was described as resembling that which might be occasioned by driving a long nail through the pectoral viscera! Some degree of pain might be experienced; but, independently of the shattered and disordered state of the nervous system, it was what would not have been noticed by the patient; nor, in point of fact, does a similar application induce scarcely any complaint in the most delicate children.

To regard pain, abstractedly considered, as a legitimate datum on which to argue the fugitive and fluctuating nature of disease, is an unwarrantable assumption. It is much too vague and equivocal in its nature, cause, origin, and extension, to be admitted as a just ground on which to determine the true character and effects of erratic pains, however proteiform and afflicting may be the suffering by which they may be accompanied. These variable and excursive pains almost exclusively belong to a disturbed nervous system, and ought never to be adduced in proof of any hypothesis respecting the laws and conditions by which the transference of disease is regulated. The theories must indeed be wildly visionary, in which casual, transient, and evanescent pains, occurring in a state of distempered sensibility, should be made the basis of positive disease. Like *igniis fatui*, they will betray the deluded enquirer into an inextricable labyrinth of misapprehension and error.

Two instances have lately occurred in my practice, of the transfering and counteracting influence of inflammatory action taking place in a situation remote from the part that was first affected. The medical practitioner and the physiologist must feel an interest in obtaining additional proof of the possibility of one inflammatory ailment having the effect of gradually diminishing, and at length of wholly superseding, another. The cases referred to, are those of females after parturition. In both instances, as if nature were proceeding by an established law from which there could be no deviation, high inflammatory excitement arose in the uterine system on about the fourth day after the accouchement, accompanied with a tumid abdomen, scanty lactition; and, in one of the cases, with an inability to pass water, requiring its occasional removal by the catheter. In these circumstances, much general disease prevailed: indeed, the most unpromising aspect of puerperal fever was exhibited. Repeated bleedings, a soluble state of the bowels effected by castor-oil and clysters, and blistering the parietes of the abdomen, were the means employed for obtaining relief. Much apparent danger of life, however, attended both these cases, until an inflammatory tumor discovered itself on one of the arms. The whole of the upper-arm, from the shoulder-joint to the elbow, was soon occupied by the tumefaction. It was not acutely painful. The affected limb, in both cases, soon became enormously swollen, losing all power of voluntary motion, and rapidly proceeded to suppuration. A considerable quantity of matter formed, which was vented, and the wound resulting from the abscess continued to yield a copious discharge for several weeks. Every symptom of puerperal disease gradually diminished, and finally subsided, after the phlegmonous tumor appeared on the arm. The relief afforded by the transfer was all that could be desired; and in both instances, after the lapse of a few weeks, it terminated in the complete recovery of the patient.

These cases furnish strong proof of the influence which inflammatory action in one situation of the body is capable of exerting over another. They seem to evince, that local preponderance on a fresh part is necessary to suspend and remove an inflammatory action that might have previously existed. General diffusion, in the form of febrile excitement, does not overcome the concentrated violence at the part originally affected; but, if the excitement should amass in a particular situation at a remote distance from the seat of the primary disease, it appears, by the agency of derivation or revulsion, to have the effect of exonerating the disordered part from the heavy pressure of disease, under which, without such critical and salutary relief, life itself might be endangered. In these

cases, inordinate uterine excitement produced the puerperal disease that occurred; and, if that state had continued unrelieved, the most imminent risk of its becoming destructive would have been incurred. The sympathetic influence of the uterus over the general system is, perhaps, superior to what is exerted by any other viscus; it is therefore, amidst the extensive liability for taking a sympathetic disease, uncertain on what particular part it may fall. The extremities are probably the most remedial situations for such transference of disease. The lower extremities occasionally sympathize with uterine irritation so as to become painfully œdematous; of which the phlegmasia dolens is an example: but it has not been so common for the upper limbs to be the seat of metastasis in uterine disease. The natural tendency, however, to such a curative deposit on the extremities on these occasions, suggests a practical hint as to the propriety of inviting it thither, by blistering, or by any other mode of exciting inflammatory action, instead of instituting, as usual, counter-irritation over the region of the abdomen. It has been a long time my practice, and apparently with good effect, to apply, in visceral diseases, blisters to the inside of the lower extremities. It may also be advisable to endeavour to aid, by making similar applications to the upper limbs. It appears reasonable to expect, that more benefit would result, generally speaking, not only in uterine, but in all other visceral affections, by remote counter-excitement, than from the prevailing practice of employing it in the vicinity of the diseased organ. Thus, it would probably prove more remedial to blister the extremities in all visceral inflammations, and to apply cold to the external regions of these parts. This practice is certainly most salutary in phrenitis and in enteritis; and, perhaps, it may be safely extended to acute affections of the chest. The most unpromising case of peritonitis that ever fell under my observation, was speedily and effectually relieved by the free topical application, over the region of the abdomen, of cloths wetted in cold vinegar and water.

Much still remains to be learnt as to the best and most successful mode of treating inflammatory disease, whether stationed in certain parts or sympathetically transfered to others. It is obviously proper, under all circumstances, to aim at the earliest possible cure of all inflammatory as well as other affections. Their continuance is fraught with mischief. Their original attack is injurious; and, by delay, incurable ailment may be produced, either in the part first affected, or by the diseased sympathies which are apt to be engendered in other portions of the system. The diseased state is not easily generated. The *vis insita* of life and health tenaciously keeps its ground; and when it is positively disordered, every practicable

assistance should be afforded for its restoration and establishment. The devious course should be retraced, until the healthful state shall regain its natural ascendancy and fixation.

Taunton; June 19th, 1819.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Case of Tetanus, cured by copious Abstraction of Blood, Calomel, and Opium. By Jos. Painchaud, M.D.

On the 15th December last, Mary St. Gelais, a servant of Mr. Saul, fell on the ice, and lacerated the integuments of her right knee; but the wound not appearing dangerous, she continued her usual occupations. Eighteen days after, although the wound appeared nearly healed, she began to complain of a stiffness in the back of her neck, and of a certain difficulty in moving her jaw, accompanied with an acute pain in her knee, which the curing of the wound had not been able to dispel. The pain having increased in an alarming manner during the day, the patient was carried in the evening to Dr. Blanchet, who prescribed something for the night. Dr. A. Iffland being called in, at Mr. Saul's desire, declared that the tetanus was then complete. During three days, he employed every thing the art prescribes in such cases; but, perceiving all his efforts were useless, he requested his friend, Dr. P. de Salles Laterriere, to form a consultation. They were both of opinion that there was nothing else to be done but amputation; to which, nevertheless, the patient and her relations positively refused their consent. They then contented themselves with enlarging the wound, and dressing it with the common stimulants; leaving thus the patient with such full conviction of her approaching death, that they thought it their duty to give her warning of her extreme danger, and her relations of the certainty of her death. The disconsolate husband came to me soon after, in tears, and requested me to go and see his wife, telling me she was at the last extremity; without, however, mentioning one word of what had passed before. But, on the road, I met Dr. P. de Salles Laterriere, who informed me nearly of what I have just related, adding, that the case was quite desperate: yet the success I had already met with from copious bleedings in similar cases, prevailed on me again to try the same measures.

I found the poor woman in so violent a paroxysm, that her whole body was bent like a bow, and supported only on the back of the head and on the heels. The jaws were so closed, that it was impossible to introduce the blade of a knife. I confess that I also thought her on the very point of expiring: yet her pulse, although small and rapid, and much resembling such

a*one as commonly accompanies inflammation of the brain, holding out tolerably well, I immediately came to the resolution of bleeding her until she fainted. I was obliged to take from her thirty-six ounces of blood. The fainting-fit lasted a long time; but the contraction of the jaws and the general spasm yielded visibly to that powerful depletion. I then took advantage of the slackness of the jaw to make her swallow four ounces of castor-oil; and I prescribed the same quantity in a clyster. After two hours she had two copious stools: she notwithstanding relapsed, and as violently as before. I repeated the bleeding, which was followed by a fainting, after the fresh loss of eighteen ounces of blood. During three days, she took each day an ounce and a half of laudanum: the fourth day, her mouth again closed, and the same convulsions began. Another bleeding *ad deliquium*, (thirty ounces,) and the patient found herself relieved as if it were by enchantment. Her great repugnance to the tincture of opium made me substitute in its place the extract of pure opium combined with calomel: the doses will appear more than extraordinary, and the success alone can justify them.

I gave her sixty grains of opium and sixty of calomel each day, during three successive days; and, during six other successive days, sixty grains of opium alone each day. The calomel did not cause any salivation: it acted powerfully on the bowels, from which it expelled several worms. The woman is at present perfectly well, and goes about to her business.

Quebec; 1st February, 1819.

OBSERVATIONS *on the preceding Case, by* DR. DE SALLES LATERRIERE; *addressed to* DR. PAINCHAUD.

As I understand you have perfectly succeeded in curing Marie St. Gelais, in a case of opisthotonos, and that you are inclined to publish this extraordinary cure, I am happy to have it in my power to inform you of what took place previous to your being called in. My friend, Dr. Iffland, having the patient under his care, and the disease suddenly taking a decided turn, he thought proper to consult me. He informed me that, the patient's pulse being quick and hard, he bled her, but he observed that it augmented the spasms; that he had given her a large quantity of opium, and caused her jaw to be rubbed with opiates. The morning that I saw the patient, her head was drawn entirely back, her jaw closely locked, and the spasms very frequent. We opened the wound as far as the capsular ligament of the knee, and introduced some spirits of turpentine into it, in order to excite inflammation, and, if possible, to produce suppuration; at the same time, we recommended the application of cold iced water to the head, and the patient felt

some relief from it. However, notwithstanding the opium, calomel, cold water, and all that is prescribed in such cases, the disorder increased; and, after informing her and her husband of the dangerous situation in which she was, we apprised them that one thing only remained for us to try, and that was, amputation above the knee. The patient not agreeing to that, I was informed that you were sent for; and am happy to learn, that, by bleeding *ad deliquium*, you have succeeded in curing her. I am, sir, your's, &c. &c.

P. DE SALLES LATERRIERE.

Quebec; 30th January, 1819.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Case of Hydrophobia. Related by HALL OVEREND, Esq.

JOHN LEADBEATER, the subject of these observations, a native of Sheffield, was seized with symptoms of hydrophobia on the evening of Saturday, April 3d, and died on Tuesday morning, April 6th, about half-past eight o'clock. This unfortunate young man was by trade a bricklayer, 27 years of age; in size above the middle stature, in person muscular and well-formed, with a countenance prepossessing and handsome, and displaying a degree of intelligence considerably above the standard of uneducated mechanics.

I much regret that I am not able to give an account of the date and manner this unfortunate young man received into his constitution the most horrid of all poisons,—namely, that inflicted by the bite or otherwise of a rabid animal; unfortunately, however, this circumstance is involved in some obscurity. After bestowing a good deal of pains, I have collected the following account: About the commencement of last February, in the house of his mother-in-law, where he and his wife at that time resided, a young dog was kept, the property of the family, which was attacked, as they supposed, with the *distemper*, and in the space of a week or ten days died. From the commencement of its illness to the period of its death, it was unusually irritable and savage; repeatedly bit another dog that was kept in the house; snatched at different members of the family, when they approached or attempted to caress it; and once, in particular, assailed the deceased. Whether the animal succeeded or not in scratching or penetrating the skin with his fangs, is a circumstance the recollection of which the parties concerned cannot, with any degree of certainty, take upon themselves to assert. It is further stated, that John Leadbeater was in the habit of introducing his fingers and hand into the mouths of these dogs, in order to show the friendly intercourse that existed between

them; and, on a former occasion, but some weeks preceding the apparent indisposition of the animal alluded to, he suffered one of the dogs to lick a wound that had been recently inflicted on his leg, from a vulgar and erroneous notion that a wound licked by a dog would heal without trouble.

History of the Case.—On Saturday, John Leadbeater went to his work at the usual time in the morning, without any symptoms of indisposition; and returned to his dinner at noon. When the meal was presented to him, he observed to his wife that he felt unwell, and took much less than his usual quantity. He returned to, and continued his employment, during the afternoon. On attempting to drink a glass of beer, after finishing his day's work, at the house where he and his companions received their wages, he felt some impediment in swallowing the fluid, resulting from a rising in his throat: he consequently left the beer, and returned to his home, where he sat down to tea in company with his wife. In attempting to drink it, he remarked to her, that a painful rising in his throat prevented him swallowing at the heat he usually drank. He suffered it to cool, but soon discovered that the heat of the tea had no influence over the impediment in swallowing, and that a few drops nearly cool in the tea-spoon annoyed him as much as a larger quantity in the cup, possessing a higher temperature. After several ineffectual attempts, he relinquished the painful conflict, and retired from the table without quenching his thirst.

After tea, his wife made preparations for leaving him for a short period, with an intention to purchase necessaries in the market for the ensuing week. The idea of being left alone excited in his mind some feelings of distress, that induced him to request she would get through her operations with all possible dispatch; and, with a degree of anxiety unusual to him, extorted a promise from her to that effect.

As he had received little nourishment from his last meal, his wife, on her return, was anxious to prepare him some food in a solid form, and accordingly cooked him some meat; but the want of appetite, combined with the difficulty attendant on deglutition, were insurmountable barriers to his eating: he consequently relinquished his supper, and retired to rest, and slept until four o'clock in the morning. Feeling restless and indisposed, he shortly after left his bed, and desired his wife to prepare him some breakfast. In attempting to swallow his tea, he found his incapacity in that respect considerably increased; and, the moment it touched his lips, he was seized with spasms in his throat almost amounting to suffocation, combined with indescribable horror and excessive anxiety. In the course of the morning he obtained some water, with an intention of washing himself; but, when his hands came in contact with the

fluid, he was seized with convulsive sobbing, similar to that feeling commonly experienced by individuals who deliberately walk into a cold-bath. On applying the water to his face, violent spasms were produced, that left on his mind the impression of great alarm.

Early in the forenoon of Sunday we received a message, desiring us to pay him a visit, which my partner, Mr. Reedal, attended to soon after receiving the summons, who found him in a state of great anxiety and perturbation; but, with emphatical deliberation, he described the state of his sufferings from their commencement to the existing period, and, with determined fortitude, showed him his painful incapacity to swallow fluids, by attempting to drink a small quantity of water, which produced an effect truly alarming. This specimen informed Mr. Reedal of the situation of his patient, and convinced him that the disease he had to combat was real hydrophobia. He complained of a painful sensation in his throat, with a sense of stricture and tightness across the chest. His tongue was white, but moist; he swallowed his saliva without apparent difficulty; the temperature of the skin was above the natural standard, the pulse at ninety strokes in a minute. Sixteen ounces of blood were taken from the arm; a blister was applied to the sternum; ten grains of calomel and two of opium were given him; and a cathartic mixture, composed of infusion of senna and sulphat of magnesia, was ordered to be drank at intervals, until his bowels were freely purged. He was requested to go to bed; tranquillity and composure recommended to him.

Early in the evening I accompanied Mr. Reedal to visit his unfortunate patient, and found him in bed, with the upper part of his chest uncovered, to avoid (as he expressed it) the steam that issued from under the bed-clothes against his face, and produced spasms that disturbed and alarmed him to excess. He hailed our entrance into the room with the most friendly salutations, expressed his gratitude for our attention to him, and informed us he had experienced great benefit from the bleeding for more than two hours after the operation; that it had enabled him to support the painful application of the moist lathering-brush to his face, and that he had actually shaved himself. He informed us he had taken the pills that were sent him, with a small quantity of the cathartic mixture, from which he had been freely purged; but the horror and repugnance he entertained for the medicine, as well as every other species of fluid, had induced him to relinquish it altogether.

The pulse was rather full, and beat ninety strokes in a minute; tongue white and clammy; thirst immoderate, with little or no increased temperature of the skin. The blood drawn in the forenoon exhibited no marks of inflammation, nor was it

in any respect unnatural in its appearance. He told us that his spasms were now getting much worse, that his thirst increased, and upon the least application of moisture to his lips, he was instantly seized with indescribable pain in his throat, that evidently appeared associated with a strong sense of suffocation. He observed, that the breath of a by-stander, when too near him, or the least stream of air passing over his countenance, produced insupportable spasms; and that he had suffered exquisite torture from one of the women incautiously laying a bit of carpet at his bedside, which caused a concussion of the atmosphere against his face.

His countenance, his manner, his watchfulness, his anxiety, and solicitude, showed the unbounded extent of his sufferings, and in a great measure deterred us from wishing him to perform any operation, where no advantage could accrue but the gratification of mere curiosity. As he complained of great thirst, we proposed that he should attempt to moisten his mouth with a tea-spoonful of water: to this proposition he readily acceded, and sat up in bed to accomplish the process. In handing the water to him, a few drops were inadvertently scattered on the bed, part of which fell upon one of his hands. This trifling incident produced a paroxysm of painful suffering: he snatched away his hand as if it had been struck with an electric shock, and quicker than thought was seized with spasms in the throat and chest, that excited a strong sensation of terror in the minds of all who beheld him. After recovering from this accident, he resumed his usual tranquillity, and informed us he would endeavour to drink some water: the cup was handed to him, which he seemed to view with a sort of horrid repugnance, but, with a resolution apparently resulting from a great effort, with a trembling hand he embraced it, and made several attempts to reach his mouth; but his resolution failed him. His countenance, on this trying occasion, too plainly pourtrayed the miserable state of his feelings, but, with a calmness peculiar to him, he apologized, and begged our pardon for his delay. He now became more steadily fixed in his posture, as if he were summoning up his whole resolution, and rapidly carried the cup to his lips, which instantaneously produced spasms in his throat and chest, to an alarming and frightful extent. In moving his hand over the bed, after recovering from his last paroxysm, he accidentally touched that part of the sheet where the water had been spilt; the moisture of which excited a strong impression, and produced a slight spasmodic attack, with an increase of momentary suffering and distress.

Encouraged by the temporary relief obtained by the last bleeding, we took away in a full stream twenty-four ounces more blood; gave him four grains of calomel and three grains

of opium, which was to be repeated every three or four hours during the night. Two drachms of linementum hydrargyri were ordered to be rubbed into the region of the abdomen as soon as possible, and to be repeated early in the morning. As he had swallowed no fluids since the preceding day, excepting a small quantity of the cathartic mixture, he was desired to take, as frequently as possible, small bits of bread soaked in milk; and a nutritious enema was recommended.

For my own satisfaction, and the satisfaction of my colleague, we proposed a consultation; and Dr. Younge was fixed upon accordingly. His absence from home prevented our meeting until next morning, which was accomplished at an early hour. We found our patient dressed, and seated in a chair behind the door in the kitchen, who cordially received us, and described to us the horrible misery he had sustained during the whole of the last night; the frequency and violence of his paroxysms, the parched state of his mouth, and his total abhorrence of every species of fluid. In a style truly affecting, he explained how much he had suffered from the injection of a clyster; but more particularly from his attendants attempting to rub some ointment, with their warm hands, into the region of the abdomen, the vapour of which had risen to his face, and produced spasms of the most formidable nature. The individuals who sat up with him told us, the moment they commenced the application of the ointment, he bounded from the bed with incredible velocity, ran to the window that was constantly kept open at his request, and made an effort to leap into the street; which he most certainly would have accomplished, had not the active restraints of his attendants prevented him, with no other view than that of obtaining air, and to escape from an operation that produced sensations more terrible than death. He told us, the last bleeding had not given him the least relief; the pills, three doses of which were taken, had procured him no sleep; that his spasms were more frequent and violent; and his dread of suffocation rapidly increasing.

His pulse between eighty-five and ninety strokes in a minute; tongue foul, and more parched than formerly; skin temperate; pupils unnaturally contracted; with excessive irritability of the whole system. The blood, as formerly, had not the least appearance of inflammation. No stools since last visit; had swallowed no fluids, but had managed, with much difficulty, to get down a few small bits of bread soaked in milk.

An enema of equal parts of the mucilage of starch and milk, was ordered to be thrown up immediately, and repeated every three hours; that six grains of calomel and three of opium should be given every two hours; and half an ounce of ung.

hydrargyri should be rubbed into the inside of each thigh as soon as possible.*

At this and succeeding visits we had some difficulty to separate ourselves from him; and on every attempt to leave the house, with expressions of great anxiety and solicitude, he desired us to continue with and protect him. He was prevailed upon to go to bed, and requested to be tranquil and composed, that some sleep might be obtained; which he promised to perform to the best of his ability.

Two o'clock P.M. we visited him again, and found him seated in a chair without his coat and waistcoat, at a distance from, but opposite the window, with half an orange in his hand, which he frequently applied to the tongue in a very hurried but very cautious manner, carefully avoiding his lips, and solicitous that no part of the juice should drop into his mouth; as either circumstance agitated him with convulsive horror. At one time, while in the act of touching the tongue with the orange he constantly held in his hand for a period of near thirty hours, which seemed to impart to him feelings of momentary comfort and satisfaction, he observed to me, with a wistful countenance, "This is poor consolation to an individual, whose intolerable thirst would take a whole gallon to quench." His spasms were growing worse, and evidently more violent, with a morbidly increasing susceptibility of impression; so much so, that he suffered incredibly from any person moving across the room, except when performed cautiously and slow. His desire for fresh air was incessant; but he was frequently thrown into violent spasms, when assailed by a gentle current from the window. The dancing and undulating motion of the sun-beams against the wall and other surfaces in the room, perplexed him considerably, and never failed, when observed by him, to produce a paroxysm.

His pulse, 100 to 130 strokes in a minute, influenced by the spasms and agitation of mind; swallows his saliva without apparent difficulty; has passed urine freely, and has retained both the clysters that have been injected since our last visit. The use of the ointment and pills was directed to be continued.

The urgency of the symptoms had now a very obvious effect upon his breathing, which he managed with the most assiduous circumspection. His posture in his chair was erect; his respiration was a sort of half-breathing, avoiding, by every voluntary effort, a full inspiration, as the common action of the respiring organs was attended with spasms and distress. Observing the

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* The unguent was fixed upon in preference to the linim. hydrargyri, under a supposition that the smell of the former would not affect him so painfully as the more volatile particles of the latter.

way in which he moistened his tongue with the orange, one of his medical attendants suggested the plan of administering fluids through the medium of a flexible tube: he readily conceded to the proposition, and a tube was accordingly procured, one end of which was carefully introduced into his mouth without touching his lips, while the other was immersed in a cup of warm milk at a distance from him. Things being thus arranged, and composure recommended to him, he was desired cautiously and gently to suck the milk through the tube into his mouth, which he timidly and fearfully tried to perform; but, whether from the action of the muscles in attempting to embrace and suck the tube, or from the air rushing into the mouth in emptying it, I cannot take upon me to say, the effort was associated with convulsions of a very formidable and frightful aspect. This was the last time I saw him attempt to take fluids.

Sensible of his approaching fate, he now requested an interview with his wife's brother, whom he addressed in the most friendly language, and consigned to his future care, in terms pathetic and affecting, the protection of his wife.

At seven o'clock P.M. we paid him another visit, and found him labouring under violent spasms almost amounting to suffocation. The horizontal posture now became impracticable; and he sat in the middle of the room, with the window open, where an attendant constantly stood with the casement in his hand, incessantly opening and closing it at the direction of the patient, who at one moment felt a sense of suffocation for the want of air, while in the next a gentle breeze produced terrible convulsions.

His bowels have been freely opened since last visit; he has passed urine copiously; pupils much contracted; pulse feeble, 120 beats in a minute; cannot bear the friction of the ointment, or the moistened bread to come near his mouth.

Ten grains of calomel with five of opium were ordered to be given immediately, and repeated in an hour.

He continued without much variation until eleven o'clock, but with a decided increase of his sufferings, attended with uncommon restlessness and anxiety: to obviate which a dose of opium, amounting to eight grains, was given him, but without the least effect.

He was seldom without one or other of his medical attendants at this period, who discovered little alteration in his symptoms until after midnight, when he fell into the last and most distressing stage of the complaint.

His great sufferings induced his friends to wish for a consultation: he was consequently visited by Dr. Knight, in conjunction with Dr. Younge, about two o'clock on Tuesday morning; who agreed to give him a pill containing a fourth of a grain

of the oxide of arsenic, which was to be repeated every hour.

Instead of the want of moisture in his mouth, a most abundant secretion of mucus and saliva now took place, which he laboured to discharge with incessant vehemence, forming on the floor where he sat a pool that covered a considerable surface.* The upper part of the body was drawn and distorted in every possible direction, and twisted from side to side with incredible velocity; during which, he constantly occupied himself in discharging from his mouth, with great impetuosity and perturbation, the saliva that annoyed him. With his hand he frequently wiped from his forehead the large drops of sweat his sufferings produced; the moisture of which continued to increase his distress, and which he dashed on the floor with unparalleled efforts, piteously groaning, and emphatically uttering the word "Horrid!" In this situation he continued till half-past eight o'clock on Tuesday morning, when he quietly and almost imperceptibly fell into the arms of death, after a severe paroxysm; supported on one side by an acquaintance, and on the other by our pupil, Mr. James Fox.

He was perfectly sensible to the last moment of his existence, and at all times apologized to his attendants for occasionally pushing them from him, when involuntarily acted upon by the violence of his sufferings; and expressed, in his last moments, his obligations to those about him.

Sheffield; June 12th, 1819.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

History and Description of a remarkable Monstrosity at Cadiz. Communicated by Dr. VON EMBDEN.

OF the parentage of the monster.—Antonio Fernandez, a native of Cadiz, 30 years of age, of a sanguineous temperament and healthy constitution, married ten years to Dominica Dadero, of Finala, in the Genoese department, likewise of a sanguineous temper, well made and strong, by trade a cabinet-maker. During the ten years of their matrimonial state, she had brought forth four children,—two boys and two girls. At each of these several deliveries, the artificial delivery of the placenta had been found necessary. During the time of her fifth pregnancy, nothing extraordinary had taken place, nor had her health suffered in the least; so that she may be said to have been completely well all the time. On the 30th of May,

* The increased secretion of saliva and mucous had commenced previous to the use of the arsenic; and, most decidedly, was not the effect of mercurial action.

1818, about four o'clock in the morning, she was taken with labour-pains; and by ten the head A, presented itself, in a favourable situation. It had a pretty good and easy passage, as also the trunk, till, when the child had made its progress as far as the abdominal region, some difficulty arose. Two pair of legs now began to make their appearance, in the direction of the head, passing till beyond the navel, presenting themselves at the external pudenda; when Don Joseph Kamino, assisted by the midwife, Donna Antonio Chavo, finally extracted them. This being accomplished, the evolution of the other trunk and head B, took its natural course, without any further obstacle. The placenta was very large, and had but one umbilical chord inserted in its centre: it was however separated entire, and without much difficulty, a few minutes after the children had been delivered.

External examination.—The children continued alive from ten o'clock in the morning of the 30th of May, until the 4th of June, thirteen minutes past four o'clock in the afternoon, when the one died three minutes after the other. As long as they were both alive, several changes were observed as well in the respiration as circulation, which were sometimes simultaneous in both, and sometimes varying both in strength and frequency. The voice of child A, was slow and interrupted; but the child B, could neither be brought to cry, nor was its voice ever heard, though its features were plainly expressive of pain. A blackish-blue tinge, which but seldom overspread the whole countenance of the child B, very often coloured that of the other, whose limbs had been convulsed from the very moment of its birth, and whose life seemed in danger from these convulsions. Nevertheless, the natural pulsations of the heart were stronger in this than in the child, B. The intestinal evacuations took place several times, through a single anus, common to both children; yet, twenty hours before their expiration, they became obstructed, and the convulsions of child B increasing, a member of the committee of the Medico-Chirurgical Society, appointed by the stadtholder and governor of this city for the care and preservation of infants, gave them a remedy approved in such cases, viz. syrup of succory and rhubarb. The one, however, was scarcely able to swallow a drop of it; and they already ceased to suck in the night previous to their death. The voluntary motions of both were pretty slow, yet slowest in the convulsed one.

Immediately after their decease, the above-mentioned committee was ordered by the governor to undertake the examination of so extraordinary a phenomenon; which they executed with an attention proportioned to the remarkableness of the case, and noticed the following particulars:

The twins were united by one common abdomen, in the centre of which a single umbilical chord had its origin. The umbilical chord and that region had a greenish appearance, resembling a gangrenous scurf. On one side of the abdomen, the hips, together with the female sexual organs, had their situation: the latter were naturally formed, only that the labia pudenda majora were thick, standing pretty far asunder, and that the usual opening was wanting. The lower extremities belonging to these parts were well shaped, and the buttocks of that side provided with the usual cleft: the opening of the anus was, however, unusually large.

On the opposite side, the iliac region was narrower than the other, but showed not the least mark of sex; in the place of which, a warty excrescence, four lines in length and two in breadth, was seen adhering to the skin, underneath the mons veneris, or the lower belly. The two lower extremities belonging to that side contained, as might indeed be felt, the two bones belonging to both the thighs, but they wanted the patella and the round iliac bone; neither could the tibia and fibula be distinguished. The astragali were deformed, and both extremities covered by a common integument, externally representing but one leg. The feet were joined together till a little beyond the middle of the sole, and five toes made their appearance a little beyond that division: the great toe of the foot belonging to that side standing off at a considerable distance from the next, whereas the other three were connected by an irregular membrane. The hip had, on that side, neither any vestige of buttock nor aperture, but a small groove in lieu of it. The chest, arms, and head, of the child A, were perfectly natural; the chest of child B, a little elevated, and in the epigastric region, about the cardia, a tumor showed itself; on touching which, a fluid could be perceived fluctuating in the pectoral cavity, and beneath it a hard loose substance, which withdrew on being pressed, hiding itself in the right side.

The upper extremities offered nothing remarkable. On the side of the neck, below the maxillary angle, two anomalous tumors, of considerable size and a blackish-blue colour, were met with.

The head of B being rather large, an internal hydrocephalus, or a collection of fluid, was anticipated. The ears had a transverse position, so that their pendulous portions had a straight direction towards the nose. The occiput was flat, and the external bony excrescence in the middle of it so flattened, that it did not hardly appear to exist. Transversely across the occiput, there was a fissure, which, though it seemed to proceed from a fractured bone, penetrated no farther than the skin.

The trunks, posteriorly viewed, exhibited two pair of shoul-

ders, united by one pair of loins, common to both; the spines were plainly distinguishable in the humeral region of either child, but not in the middle of the back.

The whole length, from the farthest extremity of one head to that of the other, measured twenty-one inches. The great transverse diameter, from the points of the toes of the two joined feet to those of the separated ones, measured eighteen inches. The length of the arms, from the points of the fingers of one hand to those of the other, measured sixteen inches. The length of the two joined lower extremities, six inches and two lines; that of the separated ones, seven inches and six lines. The circumference of their common abdomen, thirteen inches; that of the head B, thirteen inches; and that of the head A, thirteen inches and six lines.

Both the children were rather emaciated, and the blackish-blue colour somewhat darker about the shoulders. The limbs, to judge from their motions while alive, were flexible, and the separated lower extremities capable of performing their office; whilst the joined ones only exhibited the motion of contraction and extension, limited to the groins. The laminæ of the head A, were quite soft, but those of B, more ossified.

Internal examination.—A semicircular incision having been made in the abdomen, and the viscera having been exposed, a membrane was discovered in the middle, beneath the navel, internally separating the abdomen of the one child from that of the other. This mediastinum consisted of the peritonea of both children, which were united at the bottom; it intercepted all intercourse between the viscera of the two cavities. Between these two membranes lay such parts as were common to both children, and of which it is necessary to speak before we proceed to the examination of the cavities proper to each of them. The membranous mediastinum above-mentioned, had two parietes and two margins, a superior and an inferior one; and two extremities. The paries belonging to the child A, contained a substance of the shape and density of the membrum virile, in which there was a cavity resembling an urethra, but without any external aperture or connexion with the vesica urinaria. The other, belonging to the child B, contained a viscus resembling an uterus, and had on its sides two substances resembling fallopian tubes, terminating in two others not unlike ovaria. All these parts were, however, much larger than those they resembled usually are in new-born infants. The uterus stood in connexion with the anus, or the termination of the cœcum of child B; and the fallopian tubes with the uterus. The superior margin of the membranous septum was joined to the inner paries of the abdomen, and the inferior one to the bodies of the dorsal vertebræ.

One of the two extremities adhered to the os pubis belonging to the hips of B, and the other to that belonging to A. From the body of the dorsal vertebræ to the pubic region of A, passed a ligament; which, passing through the pelvis, joined the inner cavity, and strengthened the adhesion of the common septum.

The vesica urinaria occupied the insterstice left by the laminæ of the above-mentioned septum, towards the thigh of B.

Proper cavities of child A.—The condition of the cerebrum, the cerebellum, and the medulla oblongata, was natural; likewise that of the heart and lungs. The stomach was small, and hardly any larger than one of the great guts. The intestines were regular as to situation and size. The liver, spleen, pancreas, and right kidney, were naturally formed; but the left kidney was greatly consumed, and had no ureter; whilst the right ureter opened into the side of the bladder. The farthermost extremity of the cœcum terminated in the anus and the common aperture.

Proper cavities of child B.—Between the bones of the head and the membranes, a small quantity of a watery fluid was discovered. The cortical substance of the brain was of an equable red, the medullar substance of a lively colour; the ventricles, and other parts of the cerebrum and cerebellum, and of the spinal marrow, were in their natural state. About half an ounce of coagulated blood was found in the lower occipital ventricles.

On opening the chest, nearly a pound of a bloody fluid flowed from that part where, in the external examination, the tumor had been felt. There was neither any anterior nor posterior mediastinum, no trachea, lungs, or pericardium, to be found; the whole pleura of both sides formed one entire cavity, taken up by the fluid just mentioned, in the middle of which the heart was found floating, which was of a tolerable circumference, and had its situation in the right side. The right side of the heart had a red spotted appearance, and steatomatous excrescences, as big as two peas, were found on the posterior part of it.

The abdomen was rather distended, and filled with a yellowish, thin, purulent, odourless fluid, amounting to about half a pound by weight. The liver wanted the large lobe; and the lesser one had a cordiform shape, with an appendage at its broad side, resting upon the small curvature of the stomach. The gall-bladder was also included in the thickening of the lobe. The stomach was natural in size, and filled with air. The intestines, as far as to the great gut, had their natural situation; the latter, however, wanted the arch, and, instead of the roman S, the gut lay in the right inguinal region, in smooth flexions, passing straight forwards into the cœcum, which terminated in the common anus.

The left kidney was larger than it ought naturally to have been, and its ureter, passing behind the fallopian tube of that side, terminated in the cœcum. The right kidney had its natural size; and its ureter passing behind the fallopian tube of the same side, terminated in that cavity of the child which before we called the uterus.

The pelvis of B was well formed. The upper part of the sacrum formed an articulation with the lateral part of the body of the dorsal vertebræ, and the posterior superior spinous processes of the iliac bone formed the same articulation.

The pelvis of A was smaller, had no sacrum, and had the same articulation.

The spine was an uninterrupted column from the shoulders, and five dorsal vertebræ between the hips, which formed an arch, the concavity of which was directed towards the abdomen, and the convexity towards the loins.

The muscles, arteries, veins, and lymphatics, could not be examined, nor the bones and tumors of the neck; the father of the twins wishing to preserve them for some particular purpose. The number of the ribs could only be observed to be twenty-four.

That the present representation accords with the original paper read before the Medico-Chirurgical Society in the extraordinary meeting of the 8th instant, and which is now kept in the drawer entrusted to my care, is certified by me,

FRANZ XAVER LASO, *Sec.*

Cadiz; June 11*th*, 1818.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Case of Cerebral Inflammation successfully treated by Leeches. By E. SUTLIFFE, Esq.

THIS circumstance would not have been deemed worthy of notice, but for the peculiar stress laid upon topical applications to the base of the cranium and the nape of the neck, by Dr. Porter, of Bristol.

Master E. F. of Friday-street, æt. 4, had laboured under ardent fever for several days before I saw him. By the parents, his disease was thought to be simply dentition; and I believe I should not at that period have been called in, but another of the household was under my care. However, upon inspection, I found terrific symptoms, viz. a pulse full and throbbing, (the peculiar characteristic of cerebral inflammation,) face deeply and generally flushed, head excessively hot, great sensibility to noise, light, &c. My prognosis to the parents was unfavourable. I conceived it disputable whether the disease had

not arrived at the incurable point of effusion, insomuch that I was hesitating on the use of means, anticipating a fatal issue; and, from the vigour of the depletory measures necessary to be resorted to, I feared lest we should be reflected upon as having hastened dissolution. This difficulty being got rid of, I advised several leeches to be applied to the temples, which bled for fourteen or sixteen hours, (this method succeeding in another case a few months prior to the present.) I added pulv. antimon. and calomel very largely, and great relief was quickly visible. On the third day after, the symptoms showed themselves with their original violence; but, a recurrence to the leeches again at the temples on one occasion, sufficed for every purpose, and convalescence rapidly supervened.

Queen-street; May 28, 1819.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Remarks on the pretended recent Improvements in the Practice of Medicine, especially in Fever. By Senex.

THROUGH the medium of your useful Journal, and two or three other periodical publications, I am enabled to see what is going on in the medical world; and can, by means of your extracts, &c. make myself tolerably well acquainted with all the modern improvements in the profession, to which I have been for nearly forty-five years daily devoted.

You must, sir, I think, be well aware how mortifying it must be to an old man like me, to see my highly respected masters, former acquaintances, and favourite remedies, treated with such contempt as all the modern writers on fever have indulged themselves in; and one would really think, that none of us, who practised forty years ago, could possibly have had common sense or discrimination in the management of fever, when we read of the superior methods which these youngsters fancy they have discovered in treating the several epidemic diseases of the day. Not content with merely introducing their treatment of fever, by prescribing venesection, calomel, and purges, as totally new, they seem to think that we had not the judgment to perceive the nature of the disease, but that we must have been totally devoid of all discernment whilst giving bark in fevers. But, sir, I think I may venture to say, that not one of the modern writers on epidemics was probably in existence then, certainly not as physicians: how, then, does he know what were the existing circumstances of climate, diet, clothing, &c. of that day. Might not the epidemics of former times have been variously modified according to these circumstances; and was it not the business of a practitioner to adapt his remedies to the

times, according to the excellent advice and practice of Sydenham, always to feel his way when an epidemic appeared? I have, for forty years and upwards, done so. I have no theoretical system nor specific recipes for diseases; nor do I like to be asked for their names. Though long an attentive pupil of both the Hunters, of Fordyce, and Saunders, and have sat many an hour under Cullen and Monro, attended patiently Harry Home and John Brown, read Morgagni, Haller, &c.; still, sir, I think myself justified in attributing my good fortune to the daily uninterrupted use of my own reason, through a period of great energy and activity, unimpaired, in the opinion of a large circle of friends, at this hour. I have lived long enough to see a great variety of epidemic fevers, with many changes of name. In the winters of the years 75 and 6, I attended hundreds of poor in continued fever, then epidemic and contagious, under the then prevalent appellation of low nervous fever: these were generally treated, and successfully treated, by nothing but tartar emetic and chalk, with an occasional dose of jalap; taking the hint (for "*fas est et ab hoste doceri*,") from the then just-introduced Dr. James's powder. In 78-9, I had as many in ague, the then general epidemic: these were all cured by bark, preceded by an emetic.

I have always treated puerperal diseases according to my observation of symptoms; have bled for five-and-twenty years, and purged for upwards of thirty, as freely as any modern: but I neither bleed nor purge all whom I am called upon to attend. The free use of calomel in bilious complaints, I learned from that most excellent practitioner, the late Dr. Clark, of Newcastle, nearly thirty years ago, long before some of those who boast of having introduced it into practice were in the profession. Contempt for the knowledge of predecessors, or older times, is not peculiar to the young practitioner in medicine. I have been treated with very apparent derision by men who were born within the last twenty-five years, for asserting that I have eaten as fine grapes and peaches, grown in the open air in this country, as are now produced in the most improved hot-houses. May not, then, the seasons and other circumstances have produced changes in the diseases as well as fruits; and, as it is now improbable that the rains of summer should be so abundant as to fill our ditches deep enough to prevent the decomposition of water, may we not expect, this autumn, again to have ague an epidemic, and may we not then find it again necessary to have recourse to bark.

Marsh miasma, the long-acknowledged source of remittent and intermittent fever, is not the result of simple exhaling moisture, (for then the sailor would be the victim,) but arises from decomposition, when the sun acts upon the mud and refuse

of decaying vegetable matter in moist places. Almost all our summers and winters, for a great many years, have had such surfaces always covered deep with water, and then simple evaporation takes place only; but the last dry summer, and this wonderful winter, in which almost all our springs have failed, having left all such places uncovered, except when showers have just fallen, may we not expect that such a mal aria will be produced as may render ague again epidemic. Then, our modern typhous writers will have to learn a new mode of treatment, and in good time discover, that successful practice, through a long life, does not depend on any fine-drawn distinctions of one or two epidemics; but must be the result of patient and diligent observation of circumstances, adapting means to ends, as experience shall direct.

Yorkshire; June 1, 1819.

FOR THE LONDON MEDICAL AND PHYSICAL JOURNAL.

Queries respecting the Origin of Azote in Herbivorous Animals.
By Silvius.

WISHING for accurate information on the following subjects, your Journal appeared to be the medium through which I might probably obtain it: by giving, therefore, a place in it to the following queries, you will confer an obligation on your constant reader, SILVIUS.

London; June 6th, 1819.

Has it been proved by decisive experiments, that azote is not absorbed from the atmosphere by the skin?

Is it not determined that absorption of azote is not effected by the lungs?

If the first query can be replied to in the affirmative, where is an account of those experiments to be found?

Does azote exist in as great proportion in the chyle of *herbivorous* as in the same fluid of *carnivorous* animals; or is the azote found in the chyle of herbivorous animals, only derived from the secretions poured into the alimentary canal during digestion?

Is the hypothesis of a new combination of the elements of vegetable substances in the alimentary canal, that most generally admitted in Europe as explanatory of the mystery of the origin of azote in herbivorous animals?

What do the best chemists, who still call azote an *element*, say to the preceding hypothesis?

COLLECTANEA MEDICA:

CONSISTING OF

ANECDOTES, FACTS, EXTRACTS, ILLUSTRATIONS, &c.

Relating to the History or the Art of Medicine, and the Auxiliary Sciences.

Floriferis ut apes in saltibus omnia libant,
Omnia nos itidem depascimur aurea dicta.

Observations on the Excretion of the Milk. (Œuvres de Bordeu. *Récherches Anatomiques sur les Glandes,* § lxxiii.)

IT is now universally understood, that the excretory ducts of the breast terminate in considerable numbers in the nipple, where they are replicated on each other in such a manner, that, if they are extended or redressed by drawing out the nipple, they permit the milk to pass with increased facility.

It is also known that an infant, in the first instance, merely elongates the nipple by drawing it towards him, and the milk thus flows into his mouth; besides that, he may also, by sucking, draw the milk of the nurse who suckles him: but this is a peculiar species of excretion, on which we shall not here dwell. It has some analogy with the effect of a cupping-glass, and does not relate to my present object. Besides which, the mechanism of this is well explained in the *Memoires de l'Académie des Sciences.*

It should be remarked, that an infant, in sucking, besides extending the nipple, irritates or excites it; so that the breast itself enters into contraction, or into a sort of *erection.*

There is no nurse who has not experienced this tension, and a species of *titillation,* which is the consequence of it. They generally say, that they perceive the milk flow into the breast. The breast becomes round, firm, and distended; and there are some women who suffer drawing and tremulous sensations, which extend as far as the shoulders, the loins, and even into the arms. These sensations are painful in some women; but they ordinarily experience a titillation more or less voluptuous.

These irritations have so much influence on the excretion of the milk, that there are many mothers who cannot suckle any other than their own infant, because they are not excited by others.

The infant has difficulty sometimes in managing every sort of nipple; and nurses find children who do not excite them sufficiently, who do not induce a flow of milk, or who do not cause those *titillations,* or those *tremulous motions,* of which we have just spoken: but there is hardly any one who does not find some infant that suits her, to which she attaches herself the more, because it repays her by exciting sensations to which tenderness succeeds.

One might believe, when an infant sucks, and when he touches the breast, handling it in different ways, that he compresses it: the fact is, he elongates it a little, and excites it by friction.

There are some mothers who, when their infant touches them, are titillated to such a degree that a sort of constriction in their breasts takes place, which prevents the flow of milk. There are some that are less sensible, who say that the contact of the infant produces an impression or modification of sensation in their breasts, which they are unable to describe, and which does not differ from that species of *erection* of which we have already spoken.

It must be acknowledged, that there are some nurses in whom the milk escapes on compressing the breast: it makes a jet, but this jet is not of long duration; it only arises from the evacuation of the largest of the lacteal vessels situate near the nipple; and if the breast does not enter into contraction, the excretion of milk does not continue.

There are also some nurses who lose their milk in this way at certain hours, after taking food: their breasts have passed through all the states of which we have spoken, and the vessels have been so full, that the milk has escaped from a sort of disgorgement; but this only takes place to a certain point, and but little also flows from compression.

It is necessary to observe what passes here with attention; and, if we take care not to confound extension with compression of the breast, or with the changes which arrive in it by irritation, we shall be convinced that compression only causes the evacuation of part of the milk, which was contained in the largest ducts about the nipple, which are, as it were, little reservoirs, that they may be suddenly evacuated; but from which compression would never excite a continual flow of the fluid, without the causes which we have detailed.

We have seen women who have endeavoured to make their milk flow before the infant had sucked them, and put their breasts into action, but that has been impossible; but, as soon as the breasts had been thrown into contraction, by rubbing them and exciting the nipple, the milk has flowed of itself for a certain time, and could not be checked until the paroxysm subsided. This illustrates what we have stated above; and it is necessary to remark, that excitement of one breast is sometimes sufficient to put them both into action.

There are women who appear to have hardly any milk in their breasts, which are lax and empty; but, as soon as the infant excites them, they become distended, and the milk freely flows.

The history of the changes which take place in women in child-bed, and that of their maladies, demonstrates still better the species of contraction which we believe to be necessary in the breast, in order that the milk may flow from it. It is only necessary to pay attention to all these changes, to be convinced that the milk only appears in the breasts when they have been put into action; and it will be easy to perceive many phenomena which confirm it, that would occupy too much space in their detail.

Similar observations, which every person may readily confirm, and to which many additional peculiarities may be made, indicate the true cause of the excretion of the milk, which depends on a species of convulsive action, that, after having prepared the passages or canals terminating in the nipple, which has itself become tense, seizes the whole body of the breast, and disposes it to render its milk, when it is excited

by the infant; which contributes, in its turn, to the excretion of that fluid by the suction it employs, as well as by the excitement of the organ which it produces.

COLLECTION OF RARE AND INTERESTING CASES.

[*Continued from vol.* xli. *p.* 311.]

"*Exudation of Blood through the Pores of the Skin.*—CATHERINE MERLIN, of Chaulney, in the 28th year of her age, received a blow from the foot of an ox on the epigastric region: she fell down insensible, and soon afterwards threw from the stomach a large quantity of blood. This hæmorrhage was renewed daily for a considerable length of time, accompanied with convulsive action of the stomach, notwithstanding the medical efforts that were made to arrest it. Her strength became much impaired, and at length the daily evacuation of blood ceased: it now occurred only after intervals of from eight to fifteen days. She then experienced a sense of fullness and heat about the stomach, vomited about a pound of blood, and then felt relieved. Hæmatemesis continued in this way during fifteen years, without any derangement in the menstrual evacuation taking place. An ignorant physician gave her strong astringent medicines to be taken internally; the vomiting then became partially suppressed, and an exudation of blood took place daily through the skin, from the extremities of the exhalent vessels. There is no part of the cutaneous surface that has not been the seat of this transudation. When the blood ceases to flow, the patient loses her appetite, feels oppressed and uneasy, and keeps in bed. This state of inconvenience continues to increase for some days; but an itching of some part of the skin announces that the hæmorrhage is about to occur, and when this takes place, all the accidents just mentioned disappear.

"When Catherine Merlin was forty-six years of age, she was seen by Dr. Boivin. She had ceased to menstruate two years; but this had not caused any change in the hæmorrhage from the skin. Twice a-day, at indeterminate periods, she feels a sense of heat and itching in some part of the skin, which is here a little tumefied; the blood escapes from the pores, and flows in large drops. On pressing the tumefied skin, which is painful, the escape of the blood is accelerated. After it has ceased, and the skin is washed, the surface does not differ in appearance from that of any other part of the body. This woman was in good health, and was not debilitated by the hæmorrhage: she habitually ate but little. From the colour of the blood, Dr. Boivin judged it to be arterial.—*Journal de Médecine.*

"I have had occasion," continues Dr. Fournier, "to observe a periodical hæmorrhage of the same kind, in a minister of state, forty-five years of age, who had undergone much anxiety and prolonged laborious study for several years. He was of the ordinary stature, had light hair, a reddish complexion, and a white and fine skin; he was of the sanguineous temperament, and of an impetuous character. After some long-continued midnight labours caused by an important subject, and at an instant when he experienced great mental uneasiness,

he gave way to venereal indiscretions during part of the night. I found him the next day suffering great febrile agitation, with acute pains in the thighs, legs, groin, pubis, and especially in the penis. All these parts were inundated by blood: from the pores of the glans, in particular, it flowed in great abundance. This ceased under the use of some medical measures; but it has since continued to re-appear always after intervals of fifteen, or at farthest twenty, days, and has ceased, after two or three days, under the use of the same means. I have attended this patient during twenty months, and have regularly witnessed the recurrence of this accident: during the last three months, it has, however, been less considerable both in duration and in the quantity of blood thus evacuated. Acute pain has always accompanied the hæmorrhage, and the penis has constantly been the part most affected."

We refer our readers to the *Philosophical Transactions*, vol. v. for histories of three analogous cases, by M. Monginot, Dr. Mesaporitus, and Dr. W. Musgrave; which are not less curious and interesting than those above related by Dr. Fournier.

The following remarkable case of Paralysis, is taken from the "*Inductions Morales et Physiologiques*" of M. Keratry; a work which contains a multitude of highly-interesting facts, as well as judicious inductions, and which merits, in an especial manner, the study of the reflective physiologist.*

"There exists in the department d'Isle-et-Vilaine, an individual,† who, after having lost his sight for ten years, continued to be at the head of a financial administration. Persons who have negociated with him, have stated that he fulfilled the duties of his station in a very sagacious manner. A total deafness obliging him to resign his office, he confined himself to the transaction of the affairs of his family. He has been seen to communicate with the persons composing it, by means of characters placed on his hands. Although blind, he has had constructed, after his own designs, a mansion of an elegant style of architecture, the execution of which he superintended. A cruel reduction of his faculties did not prevent him modelling in wax a garden on a very convenient and agreeable plan; and he often rectified the proceedings of the person who executed it, solely by the accuracy of his sense of touch. After this, he suffered complete paralysis of the arms, lower extremities, and the external surface of the body. Stricken in his last moral relations, he would have ceased to exist to external objects, if it had not, on rubbing his cheek, been ascertained that this part still possessed sensibility. Then, in conformity with his desire, (for he had not lost his voice,) his attendants communicated with him by tracing characters on this part of his face, where the sense of touch still remained. Initial letters were sufficient, when questions relative to the common material wants of life were concerned. Abridgments were also formed for other objects of communication. This remarkable being, then, in his unexampled misery, still possesses some

* Mr. Souter, of St. Paul's Church-yard, has at present a few copies of this work.

† M. Judicelli, ancien directeur des droits réunis à Rennes.

tender sensations from external relations. The hand of his wife, that of his daughter, or of a friend, makes his heart throb by sure though singular indications. Reduced to the actions of the pulmonary organs and the assimilating and digestive tubes, he claims, on the verge of the grave, and with a sort of success, the distinctive character of man,—intellectual intelligence. As the absolute immobility of his posture seems to involve in impenetrable shadows the other acts of his existence, we are led to view in him, when he speaks, a living wreck of brain alone."

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*Observations and Reflections on Vital Action.**

"ALL the phenomena of life may, in ultimate analysis, be reduced to two simple facts: a *sensation* of the presence of foreign bodies, when brought into contact with the organized tissue; and a *re-action*, by which the tissue, and in some cases the foreign body also, undergoes a consequent alteration.

"The term sensation, it should be premised, is employed by physiologists in a peculiar sense. To explain its use, it must be understood, that all bodies do not act indiscriminately upon every living tissue; each particular organization being so constituted, as to stand in relation with its own peculiar series of agents, by which alone it can be congruously affected. These agents are called the *stimuli* of the organization.

"The action, which results from the presence of a stimulus, being neither chemical nor mechanical, the tissues are considered as feeling or distinguishing between the different substances applied to them. Some affection of the living tissue must result from external impact, to determine its action or quiescence: this affection, inasmuch as it depends not upon the inorganic properties of the tissue, but arises out of its vitality, requires a distinct appellation; and from analogy it has been termed a sensation.

"In all tissues, unconnected with a nervous apparatus, these phenomena take place independently of consciousness; and, as they occur in beings altogether divested of nerves, they cannot be considered as connected with perception. Sensibility, therefore, in this restricted use of the word, represents merely the unknown modification of the tissue, which causes it to re-act, or not to re-act, according as the substance applied is, or is not, one of its appropriate stimuli. In this there seems to be little more than an habitude of the tissue with respect to its stimuli, analogous to that which in chemistry is termed *elective attraction*.

"This analogical use of the word 'sensation,' is perhaps scarcely justifiable, on account of its obvious tendency to mislead the imagination. Its close etymological connexion with the organs of sense, which must at every turn suggest the notion of consciousness, renders it a very unsafe term, when used to express a force independent of perception; a force which exists in vegetables, in amputated portions of animals, in eggs, and in seeds.

"Relative sensibility is that modification of living power which is

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* From Sir T. C. MORGAN's *Sketches of the Philosophy of Life.*

attended by consciousness, and appears to have its exclusive seat in a nervous apparatus: it ought, perhaps, on this account, rather to be considered as a function than as a primitive force.* But, the distinctions between tissue and organ, vital property and function, are too arbitrary to admit of an universal and rigid application; and utility alone must decide upon their individual appropriations.

"To express the re-action which takes place in the living tissues, upon the application of their appropriate stimuli, physiologists have adopted the term *contraction*: in this, as in the preceding case, deriving their notions from the more obvious movements which occur in animal tissues of the highest order.

"The precise nature of the simplest mode of organized re-action, which constitutes *nutritive, automatic,* or *organic* function, is perfectly unknown. It takes place in portions of the living solids, too minute to be submitted to the test of ocular observation. A particle of blood may be traced in its course through a vessel; it may be seen entering a gland, from which it escapes totally altered in its constitution, under the form of a given secretion; but the nature of the process which it has undergone escapes the scrutiny of the senses, and is wrapped in the most impenetrable obscurity.† In like manner, the food may be traced through every stage of the digestive process, and its progressive alterations noted; but, the peculiar action of the living alimentary tube, is not rendered in the least manifest by the observation. It is from analogy alone with the sensible contractions which take place in the fibres of muscles, that these various imperceptible movements are designated by the term contraction.

"Bichât, the original author of this mode of considering vitality, recognizes three varieties of organic re-action. The first, which he calls *organic insensible contraction*, but which is better designated by the terms automatic or nutritive contraction,‡ includes all the minute vascular actions of assimilation and absorption, which, being independent of volition, are conducted by causes inherent in the organs themselves.

"His second variety he terms *organic sensible contraction*, which embraces those manifest muscular movements that take place in organs exempt from the influence of volition, such as the heart and muscular coat of the intestines.

"The last variety he has named *animal contraction*, including by the term all those muscular movements which are directed by the will. This arrangement, however, is evidently inadmissible; inasmuch as it is founded upon a distinction extrinsic to the subject. Both the last modes of contraction are perfectly alike, and are included by Haller under the appellation of *irritability*. The circumstance of a muscle being connected, or not connected, with the nervous apparatus, and thereby being subservient or independent of volition, is utterly foreign

* "Magendie *Précis de Physiologie.*

† "The passage of an electric shock, as has already been observed, is insufficient to explain the differences of secretion.

‡ "The use of the term '*organic*,' as opposed to *animal* action, is vicious; inasmuch as all living actions are organic. It involves likewise the odious cacophony of organic organs.

to its structure as a muscle; and, if the nervous communication between the brain and an organ of animal contractility be cut off, its muscular properties still remain entire and unaltered.

"There are, it is true, some slight differences between the mechanical arrangement of the fibres of those muscles by which organic movements are executed, and those which obey the influence of the will, which it is necessary for the physiologist to bear in mind; and for this purpose, Bichât's discrimination is not without its convenience: but it must always be remembered, that the two forces are so much alike in all the different cases, that there are but slight philosophical grounds for establishing a separation of their phenomena into separate and contrasted orders.

"The several distinctions here attempted, both between the modes of contraction and of sensation, should indeed be regarded as in a great measure artificial; their value depending rather upon their utility in the processes of generalization, than upon their close approximation towards philosophical accuracy.

"Every distinct tissue possesses its own specific vitality; and the differences of sensibility which give birth to a flower or a muscle, must far exceed those which make the distinction between automatic and animal function. That the varieties of sensibility established by Bichât consist rather in degree than in kind, seems evident likewise from the sudden development of the perceptive sensibility during the inflammation of organs, divested of this faculty in their healthy condition. In like manner, the transition from the insensible contractions of nutritive function to the visible action of voluntary muscles takes place by such fine shades, as have involved physiologists in endless disputes concerning the muscularity or non-muscularity of particular organs.

"In tracing the phenomena of nature from the highest and most complicated movements of volition, down to the simple gravitation of matter towards a common centre, it is difficult to perceive the points at which the influence of one modification of force ceases, and another commences.

"There is every reason, short of positive proof, for supposing all the phenomena of life to depend upon one common principle, variously developed in the different living tissues. Between the lowest exertions of this principle and the cases of mere chemical affinity, the differences are scarcely appreciable; and the resemblance between chemical affinity and the attractive force of masses, is still more striking.

"So strictly similar is the mode of operation of all these different forces, that language affords but one common term for the sympathetic solicitations of love and friendship, and the mutual action of unorganized bodies. It is on this account that the mystic philosophers of antiquity attributed all things to the divine Eros,* and that Lucretius commences his system of nature by an invocation to Venus.

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* Ἦτοι μὲν πρώτιστα χάος γένετ' αὐτὰρ ἔπειτα
Γαῖ' * * * * *
* * * * * *
Ἠ δ' Ἔρος ὃς κάλλιστος ἐν ἀθανάτοισι θεοῖσι

"It must however be repeated, that the hypothesis arising out of this view (beautifully grand as by its extreme simplicity it is) belongs, in the present state of our knowledge, rather to the province of poetry than of physiology.

"The sensibility and contractility of organized tissues, not being inherent in their ultimate particles, are developed by the functional actions which take place between the solids and fluids; and the suspension of these actions is speedily followed by death.*

"The influence of the circulation upon the sensibility of relation, is still more immediate. If the blood by any means be prevented from flowing in its accustomed quantity towards the head, the perceptive functions are instantly suspended; the animal faints; and, unless the cause be speedily removed, syncope is exchanged for death. If, on the other hand, the circulation continue uninterrupted, and the ligature be cast round the nerves of a limb, so as to cut off its communication with the cerebral centre, the other tissues will continue their functions, uninterrupted by the accident. An injury having been inflicted upon the nervous apparatus, the communication of sensations to the brain, and of volition to the muscles, will indeed be of necessity suspended; but the limb will continue to live, and its muscles to contract, in obedience to other stimuli, as if no such operation had been performed. These counter-experiments clearly demonstrate that the nervous system is not the fountain of life to the rest of the economy, but receives its animation, in common with all other tissues, from the action between its own vessels and the circulating fluids.

"The manner in which the blood is distributed to the different organs, is in strict agreement with this conclusion; the quantity which flows to any one of them being closely commensurate with the intensity of its functions. One-sixth of the whole circulating fluids has been calculated to pass through the brain, in the human subject; and the muscles, which are the parts most liberally supplied with nerves, have likewise the largest quantity of blood-vessels in their structure.

"Vitality being thus at once the offspring and cause of function, there is exhibited a circle of actions, which affords neither commencement nor termination, and in which the primary cause is hidden from contemplation. The renewal of the vital energy is, however, in some way connected with the function of respiration. The blood of the mammalia, in vivifying the solids, undergoes that unknown change, which, while it confers upon it its purple colour, renders it unfit for the repetition of its functions. A counteracting process takes place in the lungs, and the energizing property of the blood is restored. The chemico-vital action of the air in these organs, is therefore demonstrably the source of regenerated vitality."†

Λυσιμελὴς πάντων τε θεῶν πάντων τ᾽ ἀνθρώπων
Δάμναται ἐν στήθεσσι νόον καὶ ἐπίφρονα βουλήν.

HESIOD *Theogonia.*

* This indeed follows from the very meaning of the term; life is essentially action.

† We have omitted some interspersed passages containing illustrations of the preceding propositions, from their being familiar to professional readers in general.—EDIT.

CRITICAL ANALYSIS

OF

RECENT PUBLICATIONS, IN THE DIFFERENT BRANCHES OF MEDICINE AND SURGERY.

"I would have men know, that, though I reprehend the easie passing over of the causes of things, "by ascribing them to secret and hidden vertues and properties; (for this hath arrested and laid "asleepe all true enquiry and indications;) yet I doe not understand but that, in the practical "part of knowledge, much will be left to experience and probation, whereunto indication cannot "so fully reach; and this not only in *specie*, but in *individuo*. Yet it was well said, *Vere scire*, "*esse per causas scire*."—BACON.

The Dublin Hospital Reports, and Communications in Medicine and Surgery. Vol. II. 8vo. pp. 389. Hodges and M'Arthur, Dublin; and Longman and Co. London. 1818.

THIS volume has already been introduced to our readers in the Sketch of the History of Medicine, given in the last Number of this Journal. We now proceed to fulfil the promise then made by our colleague, that a particular review of it would be given on a future occasion. It commences with

A Report of the Hardwicke Fever-Hospital, for the Year ending on the 31st of March, 1818; *including a brief Account of an Epidemic Fever in Dublin*. By JOHN CHEYNE, M.D. F.R.S.E. M.R.I.A. &c.

THIS report is to be viewed as a continuation of that given by Dr. CHEYNE in the first volume, and is occupied chiefly by observations relative to the type of fever described as the third species in the former report, and which became the epidemic of summer, and was generally prevalent over Ireland.

In order to form a correct estimate of the value of this report, it should be regarded in its relations to the observations previously made by the same author, as well as to the character of the existing season, and various local circumstances which cannot be embraced in an analytical review: it is only those parts of it which bear a more general relation to the nature of fever, and its appropriate mode of treatment, that can form the subject of our remarks; and, from the full account given on a former occasion of Dr. Cheyne's practical conclusions from an analogous form of disease, we need now only notice those circumstances which possess the most evident novelty, or which, from their importance, can hardly be too often impressed on the mind of the medical practitioner.

In many patients, Dr. Cheyne thought the fever appeared to arise from contagion; at least, it was not easy to account for the number of individuals belonging to the same family, who were brought to the hospital about the same time, or in immediate succession.

"Some patients felt an unaccountable dejection of spirits for several days before seizure; some continued at work or labour for several days after their illness began in the shape of a head-ach, which frequently intermitted; in a few, the disease began with intense head-ach without rigor, the patients being, as they said, at once knocked down; some referred their illness to catarrh or indigestion, and had no suspicion, for the first three or four days, that they laboured under a fever; but, generally speaking, there was nothing unusual in the commencement of the disease. There were rigors, confined bowels, anorexia, head-ach, sometimes vertigo, dryness of the nostrils, severe pains in the loins and back, and debility; and these symptoms were soon followed by increase of temperature, a degree of fullness of the features, and flushing of the face; which last was an universal symptom with all who were admitted within the first week or ten days of their illness. The tongue, in the beginning of the fever, was generally white or grey, slightly swoln, with florid edges."

Symptoms of pulmonic irritation usually set in early. During the months of April, May, and June, of 175 patients, at least three-fourths had cough, with pains or oppression of the chest, and quickened respiration. In many of these there was expectoration of bloody mucus.

In the more severe cases, a state of delirium appeared about the end of the first week, which degenerated into sopor, often accompanied with subsultus tendinum. About the period at which delirium set in, the tongue had often a dark-yellow or brown stripe in the middle, the edges being clean and thinly covered with white mucus. As the soporous state went off, the blackness and dryness of the tongue went off also, leaving that organ in a more natural condition, more expanded, and again white with florid edges, and moist from a return of secretion, which was sometimes copious.

The pulse, in general, was more or less frequent, according to the severity or mildness of the disease; but there were several alarming cases in which it never exceeded eighty.

When delirium set in, the symptoms of pulmonic irritation often abated, and the head-ach also; and, when reason was restored, in some few patients, the pulmonic affection recurred.

The temperature of the body was in general very high, frequently from 104° to 109° Fah. This phenomenon accompanied the fever when epigastric tenderness was the most urgent local affection, as frequently as when affection of the lungs was the predominant symptom of the early period of the fever. The circulation was generally, but not always, proportionably quickened; and the respiration was even less affected during the excess of temperature than the circulation. In forty patients, in whom the temperature exceeded 104°, there was only one death; and in the majority of fatal cases, the temperature did not exceed 100°.

"Venesection (Dr. Cheyne remarks) sometimes lowered the temperature; frequently it produced no change; and in several instances the thermometer rose two or three degrees after blood-letting, even when that measure greatly relieved the patient. It is clear that venesection was not contra-indicated by excess of temperature alone; since, in nineteen patients of a temperature which raised the thermometer above 104°, in whom blood-letting was practised, there was no instance of death.

"In examining the disordered state of the vital functions during the summer of 1817, with a view to the prognostics of continued fever, we derived more information from the state of the breathing than from the pulse, and more from the pulse than from the temperature of the body.

"Among such patients as were admitted early, and were treated upon a strictly antiphlogistic plan, there were many instances of crisis on the third or fourth day, the disease appearing as a febricula, or perhaps rather as an extended ephemera; and these specimens of mild fever occurred even among those who came from houses which afforded us instances of the disease in its worst form: the disease, however, was fatal, in a large proportion, among such as came from houses which we supposed were infected, and in these persons relapses were very frequent. On the other hand, in many who denied having had any communication with patients in fever, the disease was attended with severe symptoms, and ran the usual course. In a word, the fevers which we supposed arose from contagion, and those which seemed to originate in intemperance, cold, fatigue, &c. in which we could discover no trace of contagion, were so shaded into each other, that it was impossible, by their symptoms, to demonstrate any difference between them."

We pass over the observations of Dr. Cheyne on the signs of the critical phenomena, as well as some remarks on the appearances on dissection, from their having been already noticed in the Historical Sketch, to the general account of the remedial measures that were adopted.

"During the first ten or twelve days, the treatment was strictly antiphlogistic. In the cases which terminated before the end of the second week, it was generally antiphlogistic throughout. First, the bowels were thoroughly purged; and then, in all the milder cases, the disease was left to cold water or whey, cool air, and sponging the head and neck and chest with vinegar and water, together with a purgative when there was not more than one stool in the day. In the more protracted cases, the cordial plan of treatment gradually took place of the antiphlogistic: provided there was no inflammatory determination, from four to eight ounces of port-wine were allowed daily; from the latter quantity, every advantage which seemed attainable from wine, was procured. About the eleventh or twelfth day, provided the cough was subdued or had become moist, and there was no head-ach or great flushing, and no tension or tenderness of the epigastrium, I generally ordered wine on the patient's complaining of

weakness, or on debility being evidenced in the position of the patient, languor of the circulation, or on the appearance of symptoms which indicate irregularity in the supply of the nervous power; as muttering, low delirium, tremors, subsultus, floccitation, &c.; or on the tongue becoming shrivelled, dry, and black. Along with wine the calomel bolus was given, generally every second day.

"There was another condition of the disease, in which a moderate quantity of wine was allowed. When, between the second and third week of the fever, the patient's appearance was nearly natural, save that his complexion was high, his tongue nearly clean, only perhaps too florid; and when, with these symptoms, the heat of the surface was great, and the complaint of weakness considerable: in such a state, wine was often very useful; to which were added, saline diaphoretics, an occasional purgative, and fomentations to the lower extremities.

"In offering a few observations on blood-letting, it is necessary that I should begin by correcting an error into which I have fallen in my first report. I have there said, that, in two or three cases in which venesection was performed during the exacerbatio critica, the salutary effort of the constitution was interrupted, and the fever went on for several days longer: the term exacerbatio critica ought, in strict propriety, to be confined to the struggle which is apparent before the rigor or sweat takes place, in which case venesection is not always injurious; for, in several instances, mistaking the purport of the symptoms which constituted the exacerbatio critica, I ordered the patient to be let blood, and perspiration and perfect crisis followed the operation. Had I been fully aware of the nature of the struggle in these cases, I would have left the disease to its course. Nevertheless, it is certain that blood-letting in the first period of crisis was not in any instance injurious: the bleeding, alluded to in my first report, which interrupted the salutary effort of the constitution, was performed in the second or third period. The effect of blood-letting in the first stage of crisis, may be considered as analogous to that produced by blood-letting in the hot stage of remittent fever; a practice which was common fifty or sixty years ago, to procure a more speedy and complete remission.

"In April, May, June, July, and August, of about 300 patients admitted into No. 1 and No. 4, 149 were let blood; some of these, three or four times. Of these, immediate relief after blood-letting was experienced by 94; but I am convinced that a much greater number were in an improved state on the day after they were bled: yet the blood drawn was not sizy in one case of twenty, if we except the relapses, and those cases in which blood was drawn to relieve the inflammatory affections which were apt to occur during convalescence.

"Bleeding did not appear to me injurious in any one instance in which it was performed in my wards. Of the 94 patients above mentioned, who were let blood with advantage, 69 had symptoms of pulmonic irritation, and almost every one of these had head-ach also; fifteen were without pulmonic disturbance, but had severe head-ach with flushed eyes, and most of them a tendency to delirium; and three

had either epigastric tenderness or tormina and tenesmus. Nearly three-fourths of the patients admitted had pneumonic symptoms."

Tenderness of the epigastrium was with more certainty relieved by topical than by general bleeding, although the latter was frequently employed also. Venesection was seldom repeated, but the application of leeches not unfrequently. After the first or second time of applying them, a vesicatory was frequently ordered to the epigastrium, small doses of neutral salts were given, or some of the saline diaphoretics; and the disease then pursued a more temperate course. We shall not repeat Dr. Cheyne's more general remarks on the use of blood-letting, and other remedial measures; but we must transcribe the following paragraph:

"Of purgatives, cooling drinks, cleanliness, including frequent change of linen and personal ablution, large airy apartments, and thorough ventilation, there appears now to be but one opinion among physicians. With regard to blood-letting, mercury, opium, and wine, (to some one of which, in many otherwise excellent works on fever, an undue bias may be discovered,) I beg to remind the young, inexperienced, and ardent practitioner, that they are remedies applicable only to particular cases; and, with respect to the use of such powerful means, it may be observed, that, while the perfection of our art consists in knowing the exact point at which expectation should yield to action, the greatest authorities in medicine have been more apprehensive of the officiousness of zeal, of the *nimia diligentia medici*, than of that degree of distrust in the resources of prescription, which will prevent us from interfering with the operations of nature upon every trifling alarm."

Symptoms of dysentery occurred in some patients, after the beginning of October, and they not unfrequently formed a part of the disease during the whole winter. In dissections, the mucous membrane of the stomach and intestines was oftener in a pulpy and vascular state, and coated with a morbid secretion, than it had been during summer; "but the brain still continued the chief seat of the morbid appearances. I do not recollect a single dissection in which the remains of an excited state of the vessels of the brain did not appear."

"I never (Dr. Cheyne observes) witnessed so large a proportion of patients in fever, jaundiced, as during the summer of 1818. Now, while I am drawing up this report, (July 1818,) we have what would have been counted by some of the older writers, a strongly-marked bilious constitution, which they would probably have referred to the uncommon and long-continued heat and drought of the season. The great majority of these cases probably depend upon congestion and active absorption of the bile. The icteroid colour generally yielded to leeches applied to the right hypochondrium, or cupping and scarifying; sometimes blisters, and a solution of neutral salts, to which a few

doses of the blue-pill were generally added; but many of the cases of this affection doubtless admitted of a spontaneous cure."

On some wards of the Whitworth Hospital being appropriated to patients who were suffering the sequelæ of fever, Dr. Cheyne, anxious to study fever in its effects, and thus to complete his view of the epidemic, obtained the charge of these wards. He found the most common sequelæ to be diseases of the mucous and serous membranes; tubercular consumption, called into activity by excitement of the bronchial membrane, and which always ran a rapid course; hydrothorax and hydrocardia, hæmatemesis, dysentery, ascites, and ophthalmia. Chronic rheumatism was not unfrequent; and there were some other affections of more rare occurrence: mania, paralysis, and an affection, not confined to the female sex, resembling phlegmasia dolens.

We shall conclude our extracts from this highly valuable report with the following paragraph, which we are sure will be perused with general regret:

"It was originally my intention (says Dr. Cheyne) to continue my labours in the Fever Hospital for another year, expecting, in a period of three years, to meet with most of the common varieties of the continued fevers of this country; but, by the resignation of my friend, Dr. Edward Percival, a part of the hospitals of the House of Industry, which does not contain any patients in fever, has fallen to my charge; and hence, as I no longer possess the same ample opportunities of observing the phenomena of fever, this shall be the last publication on that subject with which I shall trouble the reader."

Surgical Report: containing an Account of those Affections of the Penis which are generally considered as primary Symptoms of Syphilis; with the Modes of Treatment employed in the Richmond Surgical Hospital. By C. H. Todd, Member of the Royal College of Surgeons in Ireland, &c.

This report is said to form the first of an intended series: the present comprises observations on phymosis and paraphymosis; erysipelatous inflammation, and gangrene of the penis; with some general remarks on ulcers of the organs of generation, and a gangrenous affection of those parts occurring in old men. We shall adduce an account of the last-mentioned disease, as the only part of the report that possesses the least novelty. We can only account for its appearance in this volume, and the publication of it by Mr. Todd, by supposing that he intends to give a complete history of the diseases of the organs of generation; and that he has thought proper to comprise in it what is generally known, as well as the novelties he may have to adduce. We should also remark, that but few of the diseases here noticed, are "*generally considered as primary symptoms of*

syphilis." The following is the account of the form of disease to which we have above alluded :

"Old and debilitated men are not unfrequently received into the Richmond Surgical Hospital, labouring under a peculiar form of mortification of the penis, which in no instance could I trace to a venereal origin. The species of gangrene of the penis to which I allude, is not preceded by any marked symptoms of inflammation; at least, if inflammation does exist at any period, it is in a degree so slight as to be generally unnoticed by the patient. The appearance of actual mortification is the first subject of alarm; and, so great is the apathy with which such patients are affected, that even this is unattended to, until a considerable portion of the penis has sphacelated.

"Patients of this description are seldom able to give a satisfactory detail of the history of the case, and they uniformly exhibit an indifference in regard to the origin and consequences of their disease, which is quite unaccountable. As far as I have been able to ascertain, the affection commences with a slight œdematous thickening, accompanied with some degree of soreness of the prepuce: in a few days, a black spot is observed on or near the extremity of it, which gradually spreads without much pain, until the entire penis is destroyed; in some, the gangrene extends to the scrotum and pubes, but most commonly the patient dies before this can occur.

"During the progress of this disease, the patient is extremely low and weak; his countenance pale and cadaverous; his tongue dry and covered with a brown crust; his pulse languid and often irregular, with a cold clammy moisture on the extremities. In some instances, the bowels are inactive; but, towards the latter end, their liquid contents are discharged involuntarily. Patients affected in this way seldom complain of severe pain: on the contrary, I have remarked that they appear very much at ease, and, although they do not sleep except when under the influence of an opiate, will often remain for several hours together without showing a disposition to move or make any exertion; and they are evidently annoyed and irritated by being compelled to take food or drink, or to assist in changing the applications made to the diseased parts. For a few days preceding death, they are incoherent, with a low muttering delirium and subsultus tendinum; then the local disease extends more rapidly, and the sloughs are much more offensive than at the commencement.

"This is clearly a disease of debility, and arises more from a morbid state of the system at large than from any local disease, although it is probable some slight irritation may cause the gangrene to fix on the particular part.

"In the treatment of a patient labouring under this complaint, our exertions must be chiefly employed in restoring and supporting his strength as much as possible: this object is best attained by a liberal allowance of light nutriment and wine, which his attendants should be directed to administer very frequently. I have repeatedly tried the Peruvian bark in these cases, in all its forms, without benefit; and that medicine has so often disagreed with my patients, that I have ceased to

prescribe it where wine and nutritious broths can be taken in reasonable quantities.

"From the exhibition of opium in cases of this peculiar form of mortification of the penis, I have witnessed the most favourable results, and I am certain that the lives of several of our hospital patients have been preserved by the efficacy of this medicine alone. After the state of the bowels has been regulated, we generally commence the use of opium, by directing one grain of the extract to be taken every sixth hour; and, according to circumstances, gradually increase the dose during the two or three first days, until the patient takes a grain and a half every third or fourth hour. I have seldom found it necessary to exceed this quantity; but, in extreme cases, and particularly if the patient's bowels were too free, two grains of opium have been administered every third hour, until a slight narcotic effect was induced.

"By the judicious selection of local remedies, and their careful and regular application in this most formidable disease, much good may be effected. Stimulating dressings, and especially those of the terebinthinate class, are decidedly preferable to any other: they ought to be changed at least four times in the day, and always renewed after the patient has passed his urine. If the sloughs and the discharge are offensive, the effervescing or carrot poultice may be used in conjunction with these applications; or the stimulating dressings may be omitted for a day or two, the antiseptic poultices applied, and, after as much of the mortified part has been cut off as the surgeon can remove with safety, the dressings may be again resorted to.

"When gangrene has ceased to extend, and the sphacelated parts are separating from the sound, the use of opium should be gradually discontinued: however, the patient must still be supported with a generous diet, and the state of his bowels very carefully attended to; and, as this disease has been known in many instances to recur, we must continue on our guard until the part is completely healed, and the strength of the patient established."

We now arrive at the second part of this work, comprising "Miscellaneous Communications on Medical and Surgical Diseases:" this commences with

A Case of Obliterated Aorta, by THOMAS GOODISSON, M.D.; *with some additional Observations*, by PHILIP CRAMPTON, M.D. F.R.S. Surgeon-General to the Army and Forces in Ireland.

We refer the reader for an account of this case, to the abstract given of it by our colleague in his "Historical Sketch." The following are the remarks of Dr. Crampton:

"I have, in the first place, to bear testimony to the general accuracy of Dr. Goodisson's description, which I have very carefully compared with the preparation to which it refers. Those anatomists, who have had the advantage of examining aneurisms which have undergone a spontaneous cure, will have no hesitation in referring the obliteration

of the aorta, in Dr. G.'s case, to the effects of such a process. 'The firm fleshy substance, having the appearance of the muscular fibres of the heart, and which filled the aorta for the space of about two inches, which was prolonged upwards beyond the bony sheath, and adhered firmly to the coat of the artery,' very well describes the condensed fibrin which lines the walls of all old aneurisms, and ultimately fills up their cavities when the process of a spontaneous cure has been completed; but, by cutting longitudinally through the diseased portion of the artery, and turning out the condensed coagulum with which it was filled, I was enabled to ascertain the real nature of the changes which the vessel had undergone previous to its obliteration.

"The internal coat, covered with steatomatous and earthy concretions, completely lined the cavity of the dilated portion of the artery: the dilatation itself consisted of three irregular pouches, which proceeded from the anterior and lateral surface of the vessel. It is obvious, therefore, that the disease commenced with dilatation of the artery, in consequence of a previously diseased and weakened state of its coats. That the coats had suffered neither ulceration nor rupture was evident, since, when the coagulum was detached, the internal membrane was found smooth and unbroken, and its surface presented precisely the same diseased appearances which were found on the internal coat of the aorta immediately above and below the dilatation. What the circumstance was which determined the blood to coagulate in so small a sac, (if such the dilated artery can be called,) and so much within the influence of a great current, it is difficult to conceive; but the fact is certain, and must, whether in a physiological or a practical point of view, be considered as one of the greatest importance."*

A Case of Femoral Aneurism cured by Tying the external Iliac Artery. By SAMUEL WILMOT, M.D. &c. &c.

A case in which the operation indicated in the title was performed with success, without the occurrence of any remarkable circumstances.

A Case of Apoplexy, in which the flesky Part of the Heart was converted into Fat. By J. CHEYNE, M.D. &c.

The very interesting nature of this case induces us to transcribe Dr. Cheyne's history of the phenomena observed before death: the appearances on dissection have been already related.

"A. B. 60 years of age, of a sanguine temperament, circular chest, and full habit of body, for years had lived a very sedentary life; while he indulged habitually in the luxuries of the table.

"This gentleman having had several attacks of the gout in his feet, began a course of magnesia in the year 1813; after which he had only one regular attack of the gout. For many years he had been subject

* Mr. Hodgson observes, in his valuable work "on Diseases of the Arteries, &c." that laminated coagulum is almost universally found in aneurisms in which the coats of the arteries have *given way*; but, in those sacs which consist either in a general or partial *dilatation*, he had never met with it." p. 82.

to severe attacks of catarrh, which ended without much expectoration. He had long been subject to œdema of the ankles in the evening; for two or three years before his death (the time could not be ascertained) he had remarked an occasional intermission in the pulse of his heart.

"In the latter end of January, 1816, he consulted me for a pain in his right side under the false ribs, for which he took calomel at bed-time and salts in the morning, repeating these once or twice; but he neglected my directions with regard to diet: nay, his appetite being remarkably keen, he ate more than usual, and took at least a pint of port wine or madeira daily, as was his habit, and this notwithstanding a hard, frequent cough, which came on after I was consulted by him.

"On the 3d of February, he had walked a good many miles, and came home exhausted, with a fluttering or palpitation of his heart, (for he could not well say which,) in a degree he had not felt before. He ate as usual, and drank six or seven glasses of wine, which he thought relieved the fluttering. He was sitting at tea about nine o'clock, when he was attacked with a severe fit of coughing, during which he fell from his chair insensible. I saw him in three or four minutes after his fall, and found him with a contusion on the upper and left side of the frontal bone; he was confused, and unable to recollect himself; he was conscious that some accident had befallen him, the exact nature of which he declared himself incapable of understanding. His pulse was extremely irregular and unequal. It bounded quickly for several pulsations; then it paused, and went on more quickly, but with less force. He was pale, but none of the muscles were affected with palsy. I lost no time in having blood drawn from his arm, to the amount of nearly a pound. He gradually became more collected, but his pulse continued irregular and unequal; his countenance became flushed; the cough occurred in suffocative fits; and he complained of pain on either side of the tuberosity of the occipital bone. Twelve ounces more of blood were drawn about an hour after the first blood-letting; after which the pulse, though it continued equally irregular, was much softer. He complained of the contusion, and of considerable pain behind his ears. He was removed to bed, the heat of the extremities was restored, and fifteen leeches were applied over the contusion; and he took two pills, consisting of two grains of James's powder, three of calomel, and four of compound extract of colocynth.

"On the 4th of February he had several large bilious stools; his understanding was unimpaired, his recollection restored, and he seemed to comprehend the nature of his illness; and he had a sense of fullness in his head, which led me to order him to lose a few more ounces of blood. It would be tedious and unprofitable to particularize the medicines which were ordered from day to day for this patient: they consisted of a mild mercurial every second or third day, and squills with ammoniacum, &c. These were indicated by the loaded tongue, scanty, high-coloured urine, and dry cough. The expectoration being restored, the squills were laid aside on the 15th of February, as they produced nausea and extreme depression of spirits; and bitter infusion, with tincture of cardamoms and soda, was prescribed. On the 19th, a horse-radish bath was ordered, in consequence of some slight demon-

stration of gout. On the 21st, he had some smart pain, with slight inflammation in the ball of the left great toe. About this period he submitted with so much dissatisfaction to a reduced diet, and declared himself so much better after food, that we were induced to allow him a couple of glasses of wine, and to encourage him to take carriage-exercise. The irregularity in his pulse never ceased. On the 1st of March, he had a return of the suffocative cough and flushing, with some wheezing, which again seemed to demand blood-letting; which was practised with immediate relief. At this period a blister was applied over the region of the heart, which had become the seat of considerable increase of pain, and a discharge was maintained from the blistered surface, by means of ointment of savine and cantharides: about the 4th of March, the sputa became free and concocted. His tongue at this period was for many days furred and of a dark-brown colour, as if it had been sprinkled with ground coffee; it was expanded, and its edge was moist. On the 25th of March, he began to complain of wheezing, more particularly after exertion, but it sometimes attacked him when he was at perfect rest; his legs and ankles became œdematous, the urine very scanty, much loaded, but without being coagulable by heat. At no period of his illness did his pulse beat more than twelve or fifteen strokes in regular succession. Various diuretics were given; the digitalis was proposed, but he refused to take it. Crystals of tartar, the extractum lactucæ virosæ, nitrous æther, &c. were tried without any benefit.

"The symptoms of dropsy rapidly increasing, on the 9th of April he took a draught of infusion of senna, tincture of jalap, and Rochelle salts, which operated largely. On the 10th of April, he was found in bed, flushed, speechless, and hemiplegiac. How long he had been in that state could not be ascertained, as he had peremptorily ordered his servant not to remain in the chamber with him, and not to come to him in the morning till called. All attempts to relieve him were unavailing; his right side continued powerless, and his attempts to articulate were vain. The only peculiarity in the last period of his illness, which lasted eight or nine days, was in the state of the respiration. For several days his breathing was irregular; it would entirely cease for a quarter of a minute, then it would become perceptible, though very low; then by degrees it became heaving and quick, and then it would gradually cease again: this revolution in the state of his breathing occupied about a minute, during which there were about thirty acts of respiration."*

Dr. Cheyne refers to the Edinburgh Medical Journal (Jan. 1816), for a dissection illustrative of this change of structure.

We believe there is no other similar instance on record; but KERKRING, BONNET, and MORGAGNI, give histories of cases

* "The same description of breathing was observed by me in a relative of the subject of this case, who also died of a disease of the heart; the exact nature of which, however, I am ignorant of, not having been permitted to examine the body after death."

where the heart was covered with a coat of fat of great depth, with but little appearance of muscular structure in that organ. It is worthy of remark, that, in the case related by Morgagni, the patient also died of apoplexy. Vicq-d'Azyr describes with much accuracy a similar change in other parts of the muscular system.

A Case in which Suffocation was produced by a Portion of solid Food in the Œsophagus. By John Kirby, A.B. Member of the Royal College of Surgeons in Ireland, Senior Surgeon to St. Peter's Hospital, and Lecturer on Anatomy and Surgery at the Anatomical Theatre, in Peter-street, Dublin.

The only useful indication furnished by this case, as Mr. Kirby observes, is, that it tended to confirm the opinion that it is not on the mechanical obstruction of the trachea that the cause of death immediately depends, when a solid substance is arrested in its descent through the upper part of the œsophagus, so much as on the spasmodic constriction of the muscles of the glottis.

An Account of an Endemic Disease of Ceylon, entitled Berri Berri. By J. Ridley, Esq. Surgeon in the Royal Regiment of Artillery.

This is a comprehensive, and apparently very accurate, history of the disease above designated; but it is too partially interesting to detain us on the present occasion: besides which, it had been previously well described by Dr. Christie, in an "Essay on the Diseases incident to Indian Seamen, or Lascars, on long Voyages; by W. Hunter, A.M."

An Account of the Endemic Fever of Spain, as it occurred at Carthagena in the Autumn of 1812. By Thomas Proudfoot, then Assistant-Surgeon of the 27th Regiment.

This paper contains some observations and judicious remarks on an epidemic disease, which appears to have been what is termed yellow-fever; but they are not of sufficient novelty, after the detailed and accurate histories we now possess of that disease, to lead us to occupy the pages of our Journal with a detailed account of them; and a general view of Mr. Proudfoot's pathological remarks was given in the last Number of this work.

[*To be continued.*]

On the Mimoses; or a Descriptive, Diagnostic, and Practical Essay, on the Affections usually denominated Dyspeptic, Hypochondriac, Bilious, Nervous, Chlorotic, Hysteric, Spasmodic, &c. By MARSHALL HALL, M.D. Author of a Treatise on Diagnosis; formerly Senior President of the Royal Medical Society, and Physician's Assistant in the Royal Infirmary, Edinburgh. 8vo. pp. 176. Longman and Co. 1818.

A PROMISE was made, some time since, when a partial view of this work was given in our Journal, that a particular account of it should be adduced at a future period; and it is in conformity with that promise, that we take it up on the present occasion.

It should be well understood, that the proper object of a critical review is to show, in the first place, the character of a work, and the value of its doctrines when generally and particularly considered: this, in justice to authors and the interests of science, should form the first and greatest care of the critic; he may then consult the propriety and utility of his own production, and, for the exertions he has made to display the merits of an author, be permitted to adduce such extracts from the subject of his labours as will enrich his own work, whilst they serve to illustrate or show the correctness of his critical observations and reflections. Now, there are some literary productions to which it is difficult to apply these principles; works, of which every part is so connected with the whole, that any insulated portion of them would have an incompleteness of character and apparent object, and which, being themselves condensed in manner, do not admit of an abstract being formed of their contents. This is the case with the present treatise by Dr. Hall. Unless this work be perused throughout, and with rather a particular degree of attention, its objects will not be evident. On a partial or superficial view, it may, indeed, appear to the reader to be without a precise object; and this idea will probably be favoured by its title, which is certainly not happily chosen. But, if it be perused with assiduity, and duly reflected on, it will be apparent that it is calculated to be of great utility to the medical practitioner; chiefly as a guide to the diagnosis of a very obscure and severe class of diseases. Although concise in form, and unostentatious in its character, it comprises the results of long and extensive experience, and evidently of much assiduous reflection. To those who have not perused Dr. Hall's "Treatise on Diagnosis," we observe, that this physician has an express talent for semiological observation, and has successfully devoted much of his useful labours to the promotion of this important, though generally too much neglected, part of medical knowledge.

In addition, then, to the brief account previously given of Dr. Hall's observations on the mimoses, we shall only adduce the introductory part of this work, to show its objects; and the concluding paragraphs, which contain as extensive an account as we can give, as an exposition of its doctrines; and, being presented in the words of the author, they will appear in the most favourable manner, as relates to precision and perspicuity.

"There is a class of disorders, each of which is singularly characterized by being complex, multiform, various, and changeable, and by imitating, from the appearance and predominance of particular symptoms in particular instances, other diseases very different in their nature.

"These affections have been variously, and perhaps too exclusively, attributed, by some authors, to a state of derangement in one or more of the chylopoetic viscera; and by others, to an unequal and undue distribution of the blood, by which a state of arterial excitement or of venous congestion, is induced in some particular organ, or in some particular part of the sanguiferous system. I have scarcely ventured, in this work, to enter into any speculation relative to the pathology of the affections of which it treats; for this part of medicine, notwithstanding the ingenuity of some late theorists, seems scarcely to have advanced from the state of conjecture and uncertainty described by Celsus, whose words* are still, in every sense, but too admissible. My object has rather been to present the reader with what a cautious and patient observation has taught me respecting the history, the causes, description, diagnosis, and treatment, of these disorders.

And, as the real nature and connexion of the general and topical affections in these complaints may frequently be dubious, I have deemed it advisable to appropriate some new term, which might, without implying any opinion on this subject, sufficiently express a prominent and important feature of this class of morbid affections. The denomination MIMOSIS, from the Greek word μιμος, *imitator,* will at once denote a remarkable peculiarity of these disorders, and serve to impress the mind with the necessity of distinguishing, in local affections, between those which belong to the present class, and others which are either primary or have a different origin.

"For a similar reason, I have discarded the terms bilious, nervous, spasmodic, &c. as denominations for diseases; and have reserved them only to denote certain symptoms of morbid affections. In the latter sense, their import is generally understood and sufficiently definite;

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* Cum hæc per multa volumina, perque magnæ contentionis disputationes, a medicis sæpe tractata sint atque tractentur; subjiciendum est, quæ proxima vero videri possint. Ea neque addicta alterutri opinioni sunt, neque ab utraque nimium abhorrentia; media quodammodo inter diversas sententias: quod in plurimis contentionibus deprehendere licet, sine ambitione verum scrutantibus, ut in hac ipsa re. Nam quæ demum causæ, vel secundam valetudinem præstent, vel morbos excitent, ne sapientiæ quidem professores scientia comprehendunt, sed conjectura persequuntur. Cujus autem rei non est certa notitia, ejus opinio certum reperire remedium non potest. Verumque est, ad ipsam curandi rationem nihil plus conferre, quam experientiam.—CELSI PRÆF.

but, in the former, they could only serve to satisfy the mind with vague conceptions of the affection, and to check the investigation of its particular and individual nature.*

"It was originally intended to publish the following essay in a larger form, accompanied by representations of the complexion, tongue, tinge of surface, and of the hands. It is now found necessary, however, to leave the task of procuring plates to some one more fortunately situated, or at least to a subsequent period. In the mean time the text, it is hoped, will be found a faithful portrait from nature, not unacceptable to the reader of practical medicine."

The following constitute the concluding observations of the author:

"Too much praise cannot be conferred on those members of the profession, who have so well elucidated the nature and treatment of some of the subjects of the preceding pages. There is no doubt, indeed, that this investigation of the mimoses was suggested to me by what I have learnt from the invaluable labours of Dr. Hamilton, Mr. Abernethy, and other respectable writers. My situation in Nottingham, however, has been a principal cause of fixing my attention on a class of disorders, of which the usual causes are sedentariness and confinement. This town, so celebrated for its manufactories of cotton stockings and lace, embraces a very extensive population, a great majority of which (men, women, and children) are engaged from morning till evening in the numerous sedentary occupations which these manufactories imply, deprived of the salutary influence of pure air and gentle exercise.

"To these numbers, which are peculiar to my situation, must be added the sedentary amongst the remaining part of the population,—the literary, persons of a delicate mode of life, females in general, tailors, mantua-makers, and the youthful inhabitants of the schools.

"Nor is sedentariness the only cause of the mimoses, the operation of which is peculiarly frequent amongst the poor of Nottingham. I have noticed the frequent occurrence of the mimosis decolor in cooks and housemaids. The same remark applies equally to those persons who are much engaged in 'ironing,' and, of consequence, much confined to an atmosphere over-heated by stoves for the purpose of quickly drying the articles subjected to this process.

"To this view of the causes of the mimoses, peculiar to a manufacturing town, may be added the baneful influence of a confined and impure atmosphere, and an indigestible and poor diet; an influence which we learn to estimate more perfectly, by adverting to the impediment they afford to our attempts to cure, and to the beneficial effects of the country-air and exercise, with a proper and nutritious diet.

"A certain activity of the body would appear to be necessary to insure the peristaltic movements of the intestines, and, in consequence, the propulsion of their contents. During sedentariness, these movements are probably retarded, the alvine evacuation becomes more scanty or less frequent, and the intestines remain loaded.

* See the author's *Treatise on Diagnosis*, Part i. pp. x. 2, 3.

"From this loaded state of the bowels, their functions, and those of all the chylopoetic viscera, most probably become deranged. The alvine contents become disordered merely by delay; and their presence induces in its turn a disordered state of the functions, secretions, or actions, of all the organs contributory to digestion; and at length of other organs more remotely situated in the animal frame.

"The functions of the parts within the mouth become first obviously disordered. The secretions become morbid; the tongue becomes loaded and swollen; the gums red and tumid; the breath tainted; and the saliva sometimes profuse and offensive. The complexion and the skin become morbid, and there are the appearances observed in the mimosis acuta, or the mimosis decolor. This condition of the complexion and skin varies with the state of the original disorder, and with that of the tongue and internal mouth, of which it affords indeed an index. With the state of the mouth and skin, that of the secretions and other functions of the whole course of the alimentary canal and the contributory digestive organs, the liver, the pancreas, &c. may be presumed to be all morbidly affected. Digestion is variously deranged; the contents of the bowels become unnatural; and thus reciprocally. According to the state of things, nutrition is impaired, or the sensations are uneasy and painful. To term these disorders stomachic, intestinal, hepatic, or bilious, would alike afford partial and inadequate views of this comprehensive subject. As co-existent or subsequent links of this chain of sympathies, the functions of the brain, heart, respiration, stomach, intestines, uterus, bladder, &c. become variously affected. The muscular system and the senses also suffer in different instances; and nutrition, absorption, and secretion, are impeded or impaired.

"From this view of the subject, the character of the mimoses may be deduced. And the recurrence of this word leads me once more to apologize for the introduction of a new denomination for these diseases. I have been induced to adopt this term, first, to prevent a great deal of circumlocution; and, secondly, because I could find no other in use, which was not objectionable from implying some hypothetical view of the subject. These motives, I trust, will appear sufficient to justify the innovation. I can at least conclude in the words of Morgagni, 'Longe mihi potior cura est veritatis quam novitatis.'"

An Essay on the Diseases of the Excreting Parts of the Lachrymal Organs. By William Mac Kenzie, Member of the Royal College of Surgeons, of the Medical and Chirurgical Society of London, and Lecturer on the Anatomy and Surgery of the Eye. 8vo. pp. 95. London, Anderson and Chase. 1819.

This essay constitutes an addition to our medical literature of considerable value: the subject of it is particularly interesting, and is by no means well understood by the generality of English surgeons. Under the term Fistula lachrymalis, various

forms of disease have been comprised, differing in their origin, nature, and in the treatment they require; and, as is ordinarily the case, a want of accuracy and precision in the definition of these maladies, has been attended with a want of due discrimination in the measures employed for their relief. The German surgeons excel, on many occasions, in nice discrimination of the various forms of disease which may occur in particular organs, and especially in those affecting the eye, and parts subservient to it. To supply in part the deficiency of information in our language on this point, is the intention of the present work; and it is an object which Mr. Mac Kenzie is well qualified to effect, both from his literary researches, and his opportunities for personal observation during a residence for some time in Germany, and especially his experience under the tuition of Professor Beer, of Vienna. Yet Mr. Mac Kenzie is not to be considered in this instance merely as an imitator: he has differed, in some respects, in his arrangement of the subjects of the present essay from Professors Beer and Schmidt, whom he chiefly follows; and advances some original observations of practical utility.

The author distinguishes the diseases of the excreting parts of the lachrymal organs into the following varieties: I. *Wounds of the lachrymal canals.* II. *Erysipelatous inflammation of the parts covering the lachrymal sac.* III. *Acute inflammation of the excreting parts of the lachrymal organs.* IV. *Chronic blenorrhœa of the excreting parts of the lachrymal organs.* V. *Stillicidium lachrymarum.* VI. *Fistula of the lachrymal sac.* VII. *Caries of the os unguis.* VIII. *Relaxation of the lachrymal sac.* IX. *Mucocele of the lachrymal sac.* X. *Obstruction of the lachrymal canals.* XI. *Obstruction of the nasal duct.*

This arrangement is not, we consider, wholly free from objections. Fistula of the sac is always a consequence of some of the other forms of disease above-mentioned, and may accompany nearly the whole of them; it must also vary in its character, according to the causes on which it depends, and requires a relative diversity in the measures for its cure: it would, therefore, probably have been more properly treated of in connexion with the diseases which it may accompany, than in an isolated manner. The comprising of caries of the os unguis amongst the diseases of the excreting parts of the lachrymal organs, is not quite correct. We are also not perfectly satisfied with the making a distinct variety of relaxation of the lachrymal sac; but, on turning to the work of Prof. Beer* on Diseases of the Eye, we find that he also considers it in a distinct manner, under the appellation of hernia of the lachrymal sac, which must be

* *Lehre von den Augenkrankheiten, als Leitfaden zu seinen Oeffentlichen Vorlesungen.* Von George J. Beer. Wien. 1817.

considered as high authority in support of its propriety; although Prof. Beer, as well as Mr. Mac Kenzie, describes it to be a consequence of previous excessive distention of the sac from collection of mucus, &c. in that organ, from either acute or chronic inflammation of its lining membrane. A similar objection may be made to the consideration of stillicidium lachrymarum as a variety of disease, regarding it in its connexion with a morbid state of the *excreting* parts of the lachrymal organs. With those exceptions, we consider the arrangements adopted by Mr. Mac Kenzie as systematically proper, and calculated to be of considerable utility in its application in the practice of surgery. A rapid view of the work will render this evident.

We pass over the first section, since it contains no pathological observations of important novelty, nor any therapeutical precepts not indicated by the general principles of surgery.

In the *erysipelatous inflammation of the parts covering the lachrymal sac*, the appearance of the integuments is similar to that produced by erysipelas in other parts of the body. The irritation extending to the papillæ lachrymales, causes a contraction of their orifices, and a collection of the tears in the nasal angle of the eye; and, when the inflammation is more severe, affecting the lachrymal sac, nasal duct, and canals; the papillæ become so contracted, that the puncta are completely closed; "the nostril upon the side affected is dry, and so uncommonly sensible, that the slightest irritation of the schneiderian membrane causes violent sneezing." These accidents generally disappear when the inflammation of the integuments subsides; but, the author continues to observe,

"If the lachrymal canals have participated more than common in the disease, the re-absorption of the tears does not take place immediately upon the inflammation subsiding. On the contrary, a stillicidium lachrymarum continues, when all the other symptoms have disappeared.

"If the inflammation is severe, and extends beneath the integuments, the lachrymal sac, at the commencement of the second stage, becomes completely filled with mucus, which can always be discharged by pressure. At the same time, the erysipelas ends in a real process of suppuration; the subcutaneous cellular substance becomes disorganized in order to make room for the matter of an abscess: this matter collects between the integuments and the orbicularis palpebrarum; sometimes it makes its way between the fibres of that muscle, penetrates the fibrous layer by which the sac is immediately covered, and comes into contact with the anterior part of the sac, which is already distended by the presence of an inordinate quantity of mucus. At last, the integuments give way in one or more points, and the abscess is discharged. The appearance of the parts is now apt to impose upon a superficial observer. There is the tumor of the sac; there is the

fistulous opening of the integuments. He probably pronounces the case to be a fistula lachrymalis, and forthwith opens the sac.

"Let us distinguish this case from another to which it bears some resemblance, but with which it must by no means be confounded. It may happen that the purulent matter accumulated under the integuments has actually penetrated the anterior side of the sac, which thus comes to be filled with pus received from without, in the production of which its lining, or mucous membrane, has had no share. This latter case, which, for the sake of distinction, may be called spurious fistula of the lachrymal sac, must be carefully distinguished both from the former, in which the sac is entire though distended with mucus, and from those diseases hereafter to be described, in which the purulent matter that fills the sac is the result of inflammation of the lining membrane of the sac itself."

We have indulged in the foregoing extensive transcription, because it furnishes a good specimen of the author's accuracy of observance, and will show the importance of precise pathological knowledge in the treatment of the disease.

Some observations on the causes, prognosis, and the general and local treatment, follow; from which we adduce an extract, that, with the preceding account, will convey rather a comprehensive view of the most important part of this section of the work.

"At the commencement of the suppurative stage, the patient must first of all be placed in a warm and dry atmosphere. A dry linen compress ought to be laid upon the affected integuments. Gentle diaphoretics ought to be given. If the symptoms indicate the formation of a subcutaneous abscess, a warm poultice of bread and milk ought to be applied. Still, we must not leave the matter of the abscess to make a way for itself through the integuments; but, as soon as even indistinct fluctuation is perceived, we must open the abscess with the lancet, in order to save the lachrymal sac, and prevent the formation of a spurious fistula.

"If we are not called till such a fistula has formed, let us beware of all unnecessary introduction of probes and syringes into the sac. By means of a small syringe, the fistula is to be washed out once a-day with tepid water, mixed with a little of the vinous tincture of opium. A small quantity of lint dipped in the same tincture, is then to be introduced into the abscess, but not pushed so deep as to enter the lachrymal sac. After the fistula has healed, the blenorrhœa which may remain is to be treated as shall be explained in the fourth chapter."

In the form of disease next considered, *acute inflammation of the excreting parts of the lachrymal organs*, the primary seat of the malady is the mucous membrane of the whole of the excretory parts of the lachrymal organs; this is accompanied with

"Obtuse, deep-seated pain, extending to the nose, and even to the eye-ball; a swelling appears in the situation of the lachrymal sac,

having the shape of a bean, accurately circumscribed, hard, very sensible to the touch, and affected with stinging pain whenever it is pressed. This swelling becomes gradually red, at last extremely red, and then the least touch is insupportable. The papillæ are shrunk, the puncta are scarcely visible; the absorption and conveyance of the tears into the lachrymal sac, and through the nasal duct into the nose, are completely stopped, and a stillicidium, or discharge of tears and mucus, takes place from the nasal angle of the eye. The nostril on the affected side is at first uncommonly moist, but it soon becomes dry, the inflammation extending to the mucous membrane of the nose. The inflammation affects the caruncula lachrymalis and the conjunctiva, spreading also to the orbicularis palpebrarum, and to the integuments of the lower eyelid. The redness about the nasal angle of the eye, even with some degree of swelling even to the cheek, gives to the parts, when viewed at a distance, an appearance as if the integuments were attacked by erysipelas; but, on a nearer examination, the peculiar redness, and all the other characteristics of phlegmonous inflammation, are recognized; and, in the midst of the diffused discoloration and tumefaction, the circumscribed swelling of the lachrymal sac is evident, not merely to the touch, but even to the view."

The author traces the progress and consequences of this affection in a very lucid and satisfactory manner: the most frequent results, when the inflammation has been severe, are thickening of the mucous membrane of the whole organ, and obstruction of the canals and nasal duct. The abundant secretion of mucus, being collected, distends the sac, induces inflammation and consequent rupture of its paries, and the matter is evacuated externally through the fibres of the orbicularis palpebrarum muscle and the common integuments: the consequence of this is the fistulous opening, described more particularly and distinctly in the fifth section of this essay. Sometimes, even after this accident, the natural passage of the tears is spontaneously re-established, and the opening in the paries of the sac will heal. The latter occurrence may also happen whilst the nasal duct alone remains impervious; when the patient is obliged, several times a-day, to press upon the sac to evacuate its contents. If the wound be permitted to heal whilst the canals and duct are both obstructed, the natural secretion of mucus going on will distend the sac, and induce the disease described in the ninth section under the term *mucocele*, by Mr. Mac Kenzie; or what is, not so appropriately, called dropsy of the sac by Prof. Beer.

A more mild degree of inflammation, or irritation, of the same parts, constitutes the next variety, *chronic blenorrhœa of the excreting parts of the lachrymal organs*. This is the most common of the diseases described in this essay, and is treated by the author in rather an extensive manner. The various causes, constitutional and local, from which it arises, and the conse-

quent diversity in its character and the treatment required for it, render it impossible to convey much information respecting it in an abstract. A bean-shaped tumor, from distention of the sac, and a discharge of puriform mucus through the puncta, (for the canals are not obstructed,) are the most usual symptoms. Persons of a scrofulous habit are most frequently the subjects of it; and it is usually particularly troublesome, or solely attacks the patient, during cold and wet weather. The more severe consequences of it are fistulæ, from attacks of acute inflammation ending in suppuration; induration of the organ; and permanent obliteration of its canals. The obstruction of the nasal duct, in the first instance, merely depends on the tumefaction of its mucous membrane.

This affection is ordinarily much mismanaged by practitioners in general, from a want of correct knowledge of its real nature.

Stillicidium lachrymarum is properly distinguished from *epiphora;* the former depending on obstruction of the excretory parts of the lachrymal organs, the latter on increased secretion of the tears; and, in the former point of view, cannot with propriety be considered as a form of disease.

In the section on *fistula of the lachrymal sac,* the author describes, in a particular manner, the different varieties of ulcers connected with the paries of that organ, and the appropriate mode of treatment under the various circumstances in which they appear.

From the chapter on *caries of the os unguis,* we must transcribe the following passage; it describes what we believe is frequently too true.

"The idea of the frequency of caries of this bone, which, notwithstanding the testimony of Sharp and Janin, has continued to prevail, appears to be founded chiefly upon the mismanaging treatment of surgeons themselves; and, above all, is to be attributed to their rude examination of the parts with probes and other instruments. A patient presents himself with fistula of the lachrymal sac; the idea of caries starts up in the surgeon's mind, and he forthwith takes a probe in order to examine whether there is caries or not; he penetrates the posterior part of the lachrymal sac, touches the bone with the point of the instrument, which he moves about to this side and to that, in order to make himself sure of what he is seeking for; and at last, distinctly feeling the bone, which he has denuded, he pronounces the os unguis to be carious."

Caries of this bone but rarely happens, except from fistulous ulcers of the sac, syphilis, and scrofula; and is, consequently, not a subject for any important measures of expressly local treatment.

The *relaxation of the lachrymal sac,* is a consequence of its over-distention by collected mucous or puriform matter in the

diseases described in the third and fourth sections, which has destroyed its natural contractility; and it becomes distended by its own mucus, often still secreted in preternatural quantity, and the tears collected in it, into a bean-shaped tumor. The integuments covering it are scarcely or not at all discoloured; it is not painful, it yields easily to the pressure of the finger, and never exceeds the size of a common horse-bean. Its contents are discharged by pressure, either by the canals or the nasal duct, according to the direction in which the force is applied.

"The treatment consists in the use of two distinct means, each of which, as may be seen by the testimony of Pellier and others, is, when used alone, apt to fail.*

"The first is the compression of the sac; and here let it be observed, that the present is the only case in which compression of the sac is useful. In any other disease of that part, this practice would produce the most destructive effects. The compression must be carefully applied, constantly continued, and gradually increased. Machines have been invented for this purpose, but they never fulfil with precision all these conditions. We cannot, by such an instrument as Sharp's or Petit's compressorium, the first invention of which we owe to Hieronymus Fabricius, keep up a regular and an increasing pressure: the compressing surface, upon the least occasion, especially during the night, is disarranged; and the patient is hindered from pursuing his business by the presence of such an apparatus. Graduated compresses, then, are to be preferred; over these a firm leather pad, of a proper form, is to be placed; and the whole is to be supported by a narrow roller passing round the head. In this manner, the pressure takes place exactly upon the part which ought to be acted upon; it can be daily increased; the pad cannot, even when the patient is very restless, be shoved aside; nor need such an apparatus prevent him from following his ordinary employment, even out of doors.

"The second part of the treatment consists in the application of some astringent fluid, both to the external surface of the tumor, and to the internal surface of the relaxed sac. A great variety of astringents might be mentioned as proper for this purpose; such as the sulphate of iron or of copper in solution, an infusion of oak-bark, or diluted alcohol. The graduated compresses are to be moistened twice or thrice daily with the astringent fluid which shall have been selected. A small quantity also of the same fluid is to be dropped into the lacus lachrymarum, and left to be absorbed by the puncta, the patient being laid in a horizontal position, and the compresses somewhat relaxed, but not removed.

"Such is the method of curing a disease, which I have shuddered to see treated by incision of the sac, and the passage of various instru-

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* Pott—*Observations on the Fistula Lachrymalis.* Works. London, 1808. Vol. i. page 252.

Pellier de Quensy, *Cours d'Operations sur la Chirurgie des Yeux.* Paris, 1790. Tome ii. page 207.

ments through the nasal duct; operations which are to be regarded as the more severe in such cases, because they are wholly unnecessary. As for the Anelian injections, the direct injury of the papillæ, and the over-distention and consequent atony of the puncta, so that they can no longer absorb the tears, are only some of the bad consequences of such a practice. Such injections in this particular case would be attended also by a momentary over-filling of the sac, which would be just undoing with the one hand what we were effecting with the other."

In the *mucocele of the lachrymal sac*, the tumor is accompanied with a purplish colour of the integuments, and it often attains the size of a pigeon's egg; it is very firm to the touch, and its contents cannot be evacuated by pressure, because the canals and ducts are both totally obstructed.

"The colour of the integuments in mucocele has led some authors to describe this disease under the name of varix of the lachrymal sac; and the hardness and size of the tumor, added to its colour, have frequently led those charlatans, who were formerly but too often intrusted with the care of the diseases of the eye, to extirpate the lachrymal sac affected with mucocele, under the idea that they were removing a cancerous tumor."

In the appropriate treatment of this important form of disease, the question is not whether the tumor only can be removed, for this can always be effected by laying open the sac, and turning out its contents: the important question is, whether or not the natural passages can be restored.

Obstruction of the lachrymal canals and *nasal duct*, are the affections best understood by the English and French surgeons, being those to which their attention has been chiefly directed in their views of the diseases of the organ under consideration; yet the observations of Mr. Mac Kenzie on these subjects will be perused with advantage.

Our observations on this essay have occupied a much greater space than we usually devote to so small a work; but this has necessarily arisen from the very concise manner in which the author has himself treated the different subjects it embraces: he has effected this as closely as is consistent with perspicuity of pathological description and practical utility. This is a circumstance which will contribute much to favour the benefit that will ensue from his labours, by rendering general the possession of this work by practitioners of surgery. This is no unimportant merit, at a time when productions in medical literature are so numerous, and in general so expensive, as they are at the present period.

We hope to see Mr. Mac Kenzie pursue the course he has here commenced: there are many other points in the pathology of the eye, and the parts subservient to it, on which he might ad-

duce some illustrations; both novel and important to English medical literature.

Practical Observations on the Medical Powers of the most celebrated Mineral Waters, and of the various Modes of Bathing. Intended for the Use of Invalids. By PATRICK MACKENZIE, M.D. Licentiate of the Royal College of Physicians of London, and Assistant Physician to the Fever Institution, &c. 12mo. pp. 151. London, Burgess and Hill. 1819.

ALTHOUGH this work is intended for popular use, we introduce it to our readers; since it is well calculated to supply a deficiency in our literature on the subjects of which it treats, which most medical practitioners must have had occasion to observe. On recommending patients to go to watering and bathing places, it is usual to find them advance many questions respecting the qualities of the various mineral waters, and their regimen during their use; when a work like the present to refer them to, will be found very convenient. These are subjects on which some degree of popular medical information will be really beneficial, and we are much pleased with the way in which it is conveyed in this work; for, though the author has here chosen to confine his views to the objects to which we have alluded, it is evident that he is well qualified to treat the subjects in a more profound and comprehensive manner: what he has advanced is therefore solid, although adapted to the comprehension of general readers.

We may observe, that Dr. Mackenzie has treated of the different mineral waters with a view to their medicinal, rather than their chemical, qualities; although a general account of the latter is also adduced. He divides them into the cold diluent waters, the chief of which are those of Malvern; tepid diluent waters, which are the Matlock, Bristol, and Buxton; diuretic waters, as the Seltzer; cold stimulant waters, the Spa and Pyrmonte; hot stimulant waters, those of Bath; tonic waters, Tunbridge and Hastings; tonic and aperient, the Cheltenham and Scarborough; tonic, aperient, and diuretic, the Vichey and Carlsbad waters; tonic and astringent, the Hartfell, Brighton, and Sandrocke waters; the purgative, the Seidlitz, Epsom, Leamington, and common sea-waters; alterative and detergent, those of Harrowgate and Moffat; and the hot alterative and detergent waters, those of Aix-la-Chapelle and Bareges.

CRITICAL ANALYSIS

OF

RECENT PUBLICATIONS, IN THE DIFFERENT BRANCHES OF MEDICINE AND SURGERY;

SELECT MEMOIRS, AND HISTORIES OF CASES;

In the Literature of Foreign Nations.

Πα]ρίδες ἄρα
Ανδράσιν, ὁ πα]ραῖς ἄνδρες, ἀγαλλόμεθα.

The Medical and Surgical Register; consisting chiefly of Cases in the New-York Hospital. By John Watts, jun. m.d. Valentine Mott, m.d. and Alexander Stevens, m.d. 8vo. pp. 163. Collins and Co. New-York. 1818.

THE most important part of this volume is that which comprises a *history of the application of a ligature to the arteria innominata in a man*, by Dr. V. Mott. We remark in the first instance, in order to show at once the object of our strictures on this history, that it is by no means clear, or indeed probable, that the disease for which the ligature was employed was an *aneurism of the subclavian artery*, as supposed by Dr. Mott; the gratification we have experienced from viewing in this case an effort of the art of surgery that may hereafter be employed with the most beneficial effects, is, therefore, accompanied with sensations of painful regret, from a fear that this knowledge has been obtained by the sacrifice of the life of a human being.

Having made this statement, we feel obliged to enter much into detail in our account of this case: we shall therefore, in the first instance, wholly transcribe the history of it previously to the operation.

"Michael Bateman, aged 57 years, was born in Salem, Massachusetts, and by occupation a seaman. He was admitted into the New-York Hospital, on the 1st of March, 1818, for a catarrhal affection, having at the same time his right arm and shoulder much swollen. At the time of his admission, the catarrh being thought the most considerable disease of the two, he was received as a medical patient, and placed under the care of the physician then in attendance. During the three first weeks of his residence in the house, the catarrh had greatly yielded to the remedies prescribed. The inflammation, which had produced an enlargement of the whole superior extremity, extending itself to the muscles of the neck on the right side, was also gradually subsiding.

"A tumefaction, however, situated above and posterior to the clavicle, at first involved in the general swelling, and not to be distinguished from it, began to show itself. This resisted the remedies which were effectual in relieving the other, and became more distinct and circumscribed as the latter subsided; at length assuming the form of an irregular tumor.

"The history which he gave of the case is as follows: He said,

about a week before he entered the hospital, while at work on ship-board, his feet accidentally slipped from under him, and he fell upon his right arm, shoulder, and the back part of his head; that he felt but little inconvenience from the fall, and after a short time returned to his duty. Two days subsequent to this, however, he felt pain in the shoulder, and the succeeding night was unable to lie upon it in bed. The whole arm and shoulder then began to swell, and became so painful, that he was unable any longer to perform his duty as a seaman. The ship having arrived in New-York, he was admitted into the hospital.

"For some time after the general swelling had subsided, leaving the tumor distinct and circumscribed, no circumstance occurred which gave rise to a suspicion of its being aneurismal. The enlargement was thought to be a common indolent tumor, and was repeatedly blistered, with a view to discuss it. The tumor gradually diminished under this treatment, though a considerable time elapsed before any very striking change took place.

"At length a faint and obscure pulsation was perceived: still it was a matter of doubt whether the tumor was aneurismal, or whether the pulsatory motion was communicated to it by the subclavian artery, immediately over which it was situated. From its firm, unyielding nature, upon pressure, the latter was considered as the most probable, and the blisters were continued as before. During the whole of this time the patient had worn his arm in a sling, the motions of it being very limited, and always attended with pain.

"The patient remained in this state for several days, without any marked change either in his feelings or in the appearance of the tumor.

"On the 3d of May, at six o'clock in the afternoon, the patient complained that he 'felt something give way in the tumor;' that his shoulder was very painful, and that he was able to raise it only a few inches from his side. The tumor at this time suddenly increased about one-third, and a pulsation was distinctly perceptible. Its most prominent part was below the clavicle, at which place the pulsation was most distinct. The portion above the clavicle was also much enlarged; it still however had its usual firmness, except in one point near its centre.

"*May 4th.*—The tumor is evidently increased, that portion of it more particularly which is below the clavicle; it is not as firm and resisting as it has been. Pulsation is not so distinct as yesterday, but appears to be more diffused.

"He was this day transferred to the surgical side of the house, and became my patient. The cough having become comparatively slight, the tumor appeared to be the most urgent disease, and, in my opinion, to call for prompt attention. The arm is now perfectly useless, and any motion at the shoulder-joint gives him severe pain. The patient is naturally of a spare habit; and, from the nature of his disease, and the confinement to which he has been subjected, has become much reduced in strength.

"*May 5th and 6th.*—The tumor is still progressing, and the pain

in the shoulder is also more severe. During the three last days his medicines have been discontinued, except that he is allowed to rub the parts about the clavicle with volatile liniment.

"On the 7th, I directed a consultation of my colleagues to be called, consisting of Drs. Post, Kissam, and Stevens. I now stated to them that I wished to perform an operation which would enable me to pass a ligature around the subclavian artery, before it passes through the scaleni muscles; or the arteria innominata, if the size of the tumor should prevent the accomplishment of the former. This I was permitted to do, provided the patient should assent, after a candid and fair representation was made to him of the probable termination of his disease; and that the operation, though uncertain, gave him some chance, and, as we thought, the only one, of his life.

"Dr. Post, at my request, communicated with him privately on this subject; and, after a full explanation of the nature of the case, my patient requested to have any operation performed which promised him a chance for his life, saying, that in his present state he was truly wretched.

"*May 8th, 9th, and 10th.*—The tumor is acknowledged by all to be increasing, and it is thought proper not to defer the operation any longer: I therefore requested that preparation be made for performing it to-morrow.

"It is difficult to give an idea of the size of a tumor so irregular in its form, and so peculiarly situated. A thread passed over it, from the lower part of that portion of it which is below the clavicle, extending upward obliquely across the clavicle toward the back of the neck, will measure five and a quarter inches. Another crossing this at right angles one inch above the clavicle, will measure four inches; two and a half inches of the thread are on the sternal side of the former, and one and a half on the acromial. It rises fully an inch above the clavicle; which, added to the depression below the clavicle on the opposite shoulder, will make the size of the swelling above the natural surface about two inches."

When we consider, that this tumor appeared with, or immediately subsequent to, the inflammation of the arm, shoulder, and neck; that it, for some time after it was first discovered, *diminished in volume, and was without pulsation;* that it was of an irregular form, and of a "firm, unyielding nature, on pressure;" that, when pulsation became evident, this pulsation was only in the centre of it, the rest of the tumor being of "its usual firmness;" that, at length the pulsation suddenly became less distinct and more diffused, the tumor increasing one-third in size, but retaining its firmness, except in one point near its centre; and lastly, the great bulk it acquired in so short a period; we are utterly at a loss to conceive how Dr. Mott could have imagined it to be an arterial aneurism. There is not a phenomenon or symptom amongst those he has related, that, in our opinion, should have made him alter his original idea of the nature of the disease: the whole of the latter series of symptoms only indicated that suppuration had taken place in a tumor situated upon the subclavian artery. The "something that give way in the tumor," noticed in the report of the 3d of

May, was probably the bursting of the tunics of an abscess: this is indicated by the whole of the report of that and the following day.

But, as the reader must be anxious for the remainder of the history of this case, we proceed in its relation: our further remarks will then follow.

We need not describe particularly the preliminary steps of the operation, since every anatomist must be acquainted with those which are proper on such an occasion: it may suffice to observe, that an incision was first made from just above the right clavicle and upper end of the sternum, extending over the trachea, three inches in length; then another incision, about the same length, extended from the termination of the first along the inner edge of the sterno cleido-mastoid muscle; the integuments were then dissected from the platisma myoides, which, with the sternal and part of the clavicular portion of the sterno-cleido-mastoid muscle, the sterno-hyoid and thyroid, were separated from their lower attachments, and reflected upwards over the tumor. The sheath containing the carotid artery, par vagum, and internal jugular vein, was thus exposed a little above the sternum; the artery was then exposed, and the vein and nerve separated from it; and, tracing it from this point, the subclavian artery was readily laid bare, about half an inch from its origin.

"On arriving at the subclavian artery, it appeared to be considerably larger than common, and of an unhealthy colour; and, when I exposed it to the extent of about half an inch from its origin, which was all that the tumor would permit, to ascertain this circumstance more satisfactorily, my friends concurred with me in opinion, that it would be highly injudicious to pass a ligature around it. The close contiguity of the tumor would of itself have been a sufficient objection to the application of the ligature in this situation, independent of the apparently altered state of the artery. Art, in this case, could not anticipate anything like the institution of the healthy process of adhesive inflammation in an artery in the immediate vicinity of so much disease.

"With this appearance of disease in the subclavian artery, it only remained for me either to pass the ligature around the arteria innominata, or abandon my patient. Although I very well knew that this artery had never been taken up for any condition of aneurisms, or ever performed as a surgical operation, yet, with the approbation of my friends, and reposing great confidence in the resources of the system, when aided by the noblest efforts of scientific surgery, I resolved upon the operation.

"The bifurcation of the innominata being now in view, it only remained to prosecute the dissection a little lower behind the sternum. This was done mostly with the round-edged knife, taking care to keep directly over and along the upper surface of the artery. After fairly denuding the artery upon its upper surface, I very cautiously, with the handle of a scalpel, separated the cellular substance from the sides of it, so as to avoid wounding the pleura. A round silken ligature was now readily passed around it, and the artery was tied about half

an inch below the bifurcation. The recurrent and phrenic nerves were not disturbed in this part of the operation."

No change whatever took place in the countenance of the patient on the tying of the ligature, and

"Dr. Post now asked him, if he felt any unpleasant sensation about his head, breast, or arm, or felt any way different from common? to which he replied, that he did not.

"Immediately after the ligature was drawn tight, the tumor was reduced in size about one-third, and the course of the clavicle could be distinctly felt.

"Ten minutes after the operation, the pulse is regular, and not the least variation can be perceived: it beats sixty-nine strokes in a minute; the patient says he is perfectly comfortable, and has no new or unnatural sensation, except a little stiffness of the muscles of the neck, which he thinks is owing to the position in which his head was placed during the operation. The temperature of the right arm is a little cooler than the left; his breathing has not been the least affected by the operation, but is perfectly free and natural.

"2 *o'clock* P. M.—Patient expresses a desire to eat, and is directed a little thin soup and bread; the temperature of both arms is very nearly the same; breathing perfectly natural; pulse as before.

"3 *o'clock* P.M.—There is still a trifling difference in the temperature of the two arms; ordered the right to be wrapped in cotton wadding; not the least unpleasant symptom has as yet made its appearance.

"6 *o'clock* P M.—Complains of a little pain in his head, not more on one side, however, than the other; describes it as a common head-ache. The pain of the shoulder and arm much less than before the operation: no difference can now be perceived in the temperature of the two arms; pulse a little accelerated, and perhaps a little full.

"9 P.M.—Patient complains of head-ache; skin is rather hotter than natural; pulse strong and full, and beats 75 in a minute; the carotid on the left side of the neck is observed to be much dilated, and in strong action; tongue moist and clean.

"9½ P.M.—Symptoms continuing the same, directed him to be bled from the left arm to ℥ xvj. After bleeding, the pulse fell seven beats, and was less full. Complains of some thirst; let him drink common tea.

"12 P.M.—Patient has slept a little; is free from pain; pulse full and less frequent, beats 60; skin moist, and of a natural temperature."

We have wholly transcribed the report of the first day, in order to gratify the desire of the reader to know the immediate consequences on the vital phenomena in general of so important an operation. Nothing remarkable occurred on the following day: the patient, however, lost eight ounces of blood, for the relief of a little head-ache that supervened. On the third day, it is said that "the size of the tumor is considerably diminished." We shall detail every observation relative to this point. We pass on to the report of the fifth day, since the little disturbance of the vital functions that ensued from the operation, is not of sufficient importance to be detailed: the slight degree of derangement noticed in them is the most remarkable circumstance.

The wound was first dressed on the fifth day. On removing a yest poultice, which had been applied because there had been a discharge of fetid matter, it was found that the "suppuration was considerable, and of a healthy appearance." On the sixth day, "the dressings were again removed, and the discharge seemed more considerable than at the former dressing." On the seventh day, "the suppuration was considerable and healthy." On the eighth, "the suppuration is more profuse, apparently healthy, though attended with considerable fœtor." On the ninth day, the discharge was less in quantity, and less fetid; "the tumor has diminished two-thirds, is soft, and less florid. The apex of the tumor is now below the clavicle." In the evening of the same day,

"When preparing to renew the dressings, an unexpected and an unaccountable hæmorrhage took place, which suddenly filled the cavity of the wound. The rapidity with which the blood flowed, and the size of the stream, gave rise to fearful apprehensions for the man's safety. Dry lint was immediately placed in the wound, and as much pressure made as the patient could conveniently bear, which quickly stopped it. After continuing the pressure for a short time, the lint was removed, when no hæmorrhage recurring, the usual dressings were repeated. The patient experienced no ill effects from the bleeding, nor did he seem to be much agitated."

On the eleventh day, it is stated that

"The wound is dressed daily at this hour (11 A.M.): its appearance is still very favourable, although there is still some fetor in the suppuration. The wound has contracted perhaps one-third; the tumor is also considerably diminished, and softer than before; pulsation in the right temporal and radial arteries, as before. The same dressings to be continued."

On the following day, a slough, "apparently a portion of the sheath of the vessels, came away;" as well as "the ligature which had been applied to an artery under the lower portion of the thyroid muscle." Within a few days after this, the suppuration became but very small in quantity. The large ligature came away on the fourteenth day. We now pass on to the report of the twenty-first day, which we give entirely.

"Dressed the wound three times again to-day: it is nearly closed at the bottom. The power of motion in the right arm continues to increase: he can now move it with as much facility as the left, though not to the same extent. His strength is daily improving, and the operation is considered by all to have been completely successful. Size of the tumor continues the same, no diminution of it having been perceived for the last week. The most prominent part of the tumor is yet below the clavicle; that above rises to about the height of the clavicle, which gives a little convexity to the place between the clavicle and trapezius muscle."

On the twenty-third,

"A few minutes before the hour of visiting to-day, a message was brought that the patient was bleeding from the wound. The dressings were immediately torn off, and dry lint crowded into the wound, and

slight pressure applied for a few minutes, when the hæmorrhage ceased. The patient lost at this time perhaps about twenty-four ounces of blood, and was very much prostrated. Pulsation ceased in the radial artery of the left arm, and the countenance, gasping and convulsive throes of the patient, threatened immediate dissolution: all present apprehended the instant death of the patient. . . . . He says, that he felt weary of lying on his left side and back; that he had just turned on the right, which he had not done before since the operation, agreeable to my request. At the instant of turning over, something arrested his attention, which caused him to turn his head to the opposite side suddenly, and he felt the gush of blood from the wound."

He took a pint and a half of madeira wine in the ensuing twenty-four hours.

"*Twenty-fourth day*, 6 A.M.—Slept the greater part of the night, and feels comfortable; is still languid, and has no disposition to eat any thing; says he feels sick, and once last evening vomited after drinking some wine and water.

"Wound looks exceedingly pale, and the discharge is thin and fetid, for which the carbon and yest dressings were applied. He has vomited several times to-day, and has some considerable difficulty in swallowing, and complains of a soreness in the wound upon pressure.

"9 P.M.—Dressings removed; wound very pale; right arm of the natural temperature; feels occasionally a little numbness in the hand; has taken very little nourishment during the day; pulse natural as to frequency, but small and feeble. A few minutes after dressing the wound, information was brought that hæmorrhage had ensued; and, before it could be commanded, he probably lost four ounces of blood. For his restlessness and pain in the bones, he was ordered two grains of opium.

"*Twenty-fifth day.*—Has rested well during the night, and is perhaps a little better this morning. The repeated hæmorrhages have debilitated him exceedingly; and, from the irritable state of the stomach, he can only take a very little nourishment. In the morning he was directed the effervescing draught, to be repeated every two hours: this allayed the irritability of his stomach, and enabled him to take a little breakfast.

"His countenance has altered since the first bleeding surprisingly: his eyes are now heavy, and for the most part fixed; his cheeks are sunken, and an universal palor has spread itself over his countenance; and, from every appearance, a short time will terminate his existence. He has not vomited since early in the morning; is advised to take a little soup, and to drink freely of wine and water. Dressings were renewed at 3 o'clock P.M.; shortly after which the patient again bled, but not to exceed, however, an ounce.

"*Twenty-sixth day*, 6 A.M.—Patient has not rested well; is occasionally falling into little slumbers, but is awaked by the least motion. Pulse small and feeble; respiration somewhat laboured; appears to be sinking; seems disinclined to take any thing; legs and arms constantly in motion.

"6 P.M.—Is extremely low; respiration very much laboured; is

not able to articulate. For the last three hours there has not been such continued throwing of the legs and arms about the bed: he lays in a state of insensibility; temperature of the two arms the same to the last."

Soon after this "there was another bleeding from the wound, by which he lost probably eight ounces of blood. During the whole time he did not manifest the least appearance of consciousness, nor was the least motion perceptible, except that necessary for respiration and circulation. The hæmorrhage was stopped with lint, after removing the former dressings. Respiration is now performed with the utmost difficulty, and the patient appears as if every respiration would be the last. He expired at half-past six in the afternoon. The temperature of the right arm after death, appeared by the touch to be the same as the left; it was as natural and uniform as other parts of the body."

At present we only remark, that the cause of the death of the patient is not clearly evident: the hæmorrhage in itself was not sufficient to account for it in a satisfactory manner. We transcribe wholly the account of the examination of the body after death.

"About eighteen hours after death, I opened his body. There was considerable emaciation, and the surface of the wound was of a dark-brown colour, and fetid; the wound was perhaps about one-third of its original size; it had been enlarged by the pressure of lint into it, and other means to arrest from time to time the hæmorrhage: the ulcer between his shoulders was ill-conditioned.

"For the purpose of examining the condition of the aorta, where the arteria innominata is given off, as also the origin of the latter vessel, as well as the state of the pleura at the part about which the ligature had been applied around the artery, the chest was opened in the following manner: After removing the integuments and muscles from the forepart of the chest, the sternum was carefully sawed through about an inch from its upper extremity, and raised by sawing through the ribs below the junction of the cartilages: this removed so much of the front part of the chest, as to facilitate and expose fully to view the subsequent steps of the dissection. By thus leaving the clavicles attached, every part connected with the ulcer and great vessels could be seen, and examined *in situ.*

"The arch of the aorta, and origin of the innominata, being fairly exposed, not a vestige of inflammation or its consequences could be discovered, either upon them, the lungs, or the pleura, at any part. An incision was next made longitudinally into the aorta, opposite the origin of the innominata; and, upon introducing a probe cautiously up the latter vessel, it was seen to pass into the cavity of the ulcer. The innominata was then laid open, with a pair of scissors, into the ulcer: the internal coat of this vessel was smooth and natural about its origin, but for half an inch below where the ligature had cut through the artery, it showed appearances of inflammation, and there was a coagulum adhering with considerable firmness to one of its sides; showing that nature had made an effort to plug up the extremity of so large a vessel, after the adhesion, which no doubt had been effected by the ligature, was swept away by the destructive process of ulceration.

The upper extremity of this vessel was considerably diminished in its diameter by the thickened state of its coats, occasioned by the surrounding inflammation. The innominata, about half an inch from the aorta, and a little to the left side, gave off an anomalous artery, large enough to admit a small size crow-quill.

"The ulcer at the bottom was more than twice the size of the wound in the neck; it extended laterally towards the trachea, and under the clavicle towards the tumor. The tripod of great vessels, consisting of the innominata, subclavian, and carotid arteries, to the extent of nearly an inch, was dissolved and carried away by the ulceration. The extremities of the two latter vessels were found also to open into the cavity of the ulcer. The upper surface of the pleura was very much thickened by the deposit of newly-organized matter, for the safety and protection of the cavity of the thorax. Indeed, instead of having increased the danger of penetrating this membrane, the adhesive inflammation which preceded the ulcerative, seemed, by the consolidation of cellular membrane, and the addition of new substance, to have more securely and effectually shielded it from danger.

"The internal surface of the carotid artery was lined with a coagulum of blood, more than twice the thickness of its coats, and extending above the division into internal and external, so as almost to give them a solid appearance, insomuch that a probe could barely be introduced. The subclavian artery, internally and externally to the disease, was pervious. The brachial and other arteries of the right arm were of their common diameter, and in every respect natural. The external thoracic or mammery arteries, as they went off from the subclavian, were larger than natural; the right internal mammary was pervious, and of the usual appearance. Upon opening into the tumor, which now gave (from its small size) no deformity to the shoulder, the clavicle was involved in it, and found carious, and entirely disunited about the middle. A number of lymphatic glands under the clavicles, and particularly the left, were considerably enlarged; and, when cut into, very soft, and evidently in a state of scrofulous suppuration. No other morbid appearances were observed."

What a vague and obscure account! Nothing satisfactory is said respecting those points on which every reader must have waited with anxiety for precise information. The author, from a sense of duty to his own reputation and to the dignity of the art which he professes, should have either shown that an aneurism of the subclavian artery had existed, or have candidly acknowledged that he had mistaken the nature of the case. We know not, indeed, how to interpret the account here given of the appearances after death: it has not the character of a cautious and deliberate avoidance of those points which should have formed the most important part of the anatomical investigation. We are disposed to consider, that, as Dr. Mott had himself no doubt of the existence of arterial aneurism, he had no care to make it appear evident to the public. Yet, when we consider that Dr. Mott has shown, on other occasions, that he possesses at least common accuracy of discernment, we are surprised that the history of the case during life, and the appearances on dissection, (as far as the obscurity

of the account here given will permit of rational inductions from it,) did not make it evident to him that doubts respecting the existence of aneurism might, with the strictest propriety, be entertained; and that a more accurate history of the case would be required from him than that which he has here produced. We find, indeed, no well-marked symptom or sign of aneurism, but many circumstances which mutually contribute to show that the disease was a suppurating tumor, situated over the subclavian artery. We have no description of an aneurismal sac; but it is vaguely said, "the subclavian artery, internally and externally to the *disease*, was pervious." Place this observation in opposition with the following: "a number of lymphatic glands under the clavicles, and particularly under the left, were considerably enlarged, and, when cut into, very soft, and evidently in a state of scrofulous suppuration;" and consider attentively the whole history of the case, and we think there can be but one conclusion formed as to its nature.

The reduction of the size of the tumor "about one-third" on tying the ligature, is the only occurrence noticed in this history, indicative of arterial aneurism; and this may be very well explained by the subsidence of the artery on which it rested, and of the neighbouring parts, in consequence of the comparative emptiness of the vessels thus induced. We must not omit to remark, too, that not so much further diminution of its volume ensued, as should be expected were it an aneurism, particularly when we consider the destruction of the surrounding parts from ulceration that afterwards took place. On the third day after the operation, it is stated that "the size of the tumor is considerably diminished;" on the ninth day, the "tumor has diminished two-thirds, is soft, and *less florid;* on the eleventh, it is said to be "considerably diminished," without mentioning whether this is regarded in comparison with the last report, or with its original size; and after this, "no diminution of it had been perceived for the last week:" a few days afterwards, the patient died.

There is another point we cannot suffer to pass without some remarks: the propriety of applying the ligature to the innominata, rather than to the subclavian artery, is not determined. The reasons given for not placing the ligature on the latter vessel, is that it "appeared to be considerably larger than common, and of an unhealthy colour," are not satisfactory, particularly as regards the first of these two observations. The author says, there was but half an inch of it extraneous to the tumor; and that "the close contiguity of the tumor would of itself have been a sufficient objection to the application of the ligature in this situation, independent of the apparently altered state of the artery." This we consider by no means a fair or correct conclusion. The author again says, "the pathology of arteries has long since taught us, that ulcerative inflammation, and all its train of consequences, would have been the inevitable result. This was the fate of the only case in which a ligature has been applied to the artery in this situation." Dr. Mott's pathological argument is by no means well-founded; and his corollary, according to his own mode of reasoning, should have contra-indicated the operation altogether. It is the case

related by Dr. Colles, of Dublin, to which Dr. Mott here alludes. But we must not permit ourselves to attribute much importance to Dr. Mott's physiological reasoning, after finding him say that "the brain, in no operation, has been deprived of so large a quantity of blood as in this, and yet it suffered no inconvenience: *from the effect of experiments, however, upon animals, I entertained no fear as to the consequences of my operation upon this organ.*" (p. 52.) It is strange that men will draw from experiments on brute animals conclusions they do not admit of, and neglect those inductions which may thence be rationally formed. The whole of the cerebrum may be removed from a dog without the immediate destruction of its life; he will indeed walk about after the loss of it: but no rational person can suppose that such an operation would be attended with similar results in a human being. The relation of the functions of the brain to those of the rest of the body, are widely different in the different classes of animals.

Returning to the state of the subclavian artery: the only observation made respecting it on dissection, is, that "internally and externally to the disease it was pervious;" except that it is stated, that "the tripod of great vessels, consisting of the innominata, subclavian, and carotid arteries, to the extent of nearly an inch, was dissolved and carried away by ulceration."

It appears that Dr. Mott applied the ligature to the artery without exposing the cavity of the thorax, which was one of the circumstances to be apprehended in the operation. This, we have ascertained, may be effected very well in dogs, by seizing the periods of expiration for making the necessary incisions in the exposure of the artery, and the tying of the ligature.

On concluding the remarks on this history which the nature of the serious duties we assume has obliged us to adduce, we repeat, that the gratification derived from the useful indications it furnishes, is bitterly alloyed by regret for the fate of the unfortunate patient, and disgust at the manner in which so important an event is recorded. We are also disposed to add, that the idea of the practicability of this operation, which Dr. Mott has "been in the habit of showing in his surgical lectures," seems to have preyed upon his mind, and led him to seize, in a hot and hasty manner, this opportunity for putting it to the test of experience. This remark would apply to the case, even were it proved to have been an arterial aneurism.

The next article in this volume is

A Case of Injury by Lightning, successfully treated by copious Venesection. By Alexander H. Stevens, M. D.

The very interesting nature of this case, and the results of the active and judicious treatment had recourse to in it by Dr. Stevens, induce us to give it in detail.

"I. Stones was brought into the New-York Hospital on the 29th April 1818, having been struck with lightning a week previous on board the ship Sea-Fox, Captain Fanning, off New-London. It appeared that his left hand grasped a rope, which he was drawing down;

his left foot was probably at the same moment raised from the deck of the vessel. The electric fluid, in descending the rope, had passed diagonally across his body, from the left hand to the right foot, injuring in its passage the intermediate viscera, and a considerable breadth of external integuments. A reflected operation had also involved the left side of the neck and head. The whole surface of the affected skin was blistered, as if with hot water; and numerous points were scattered over it, resembling punctures with a fork or nail. The poor fellow exhibited no signs of life for several hours after the stroke. Nothing had been done for him before he was brought to the hospital. His skin was heated and dry, his breathing laborious, his pulse strong and frequent, his tongue white and dry, and his pupils dilated. Under these circumstances, I directed the vesicated parts to be covered with the ordinary lime-water liniment. Venesection and the antiphlogistic treatment, together with the compound powder ipecac. and antimonials, were accordingly directed. Notwithstanding the typhoid heat of the skin, dilated pupil, occasional delirium, and great nervous agitation, the amount of blood drawn within ten days was about 120 ounces: it constantly exhibited the buffy coat. The recovery of the patient, a long time doubtful, and protracted by great nervous debility, was at length completed; and, at the expiration of seven weeks, except a degree of weakness in the right knee, his health was perfectly re-established."

Remarks on Cataract, and on the Position of the Patient in Operations on the Eye; with a Case successfully treated. By ALEXANDER STEVENS, M.D.

The author's remarks convey no ideas either of novelty or importance. The position of the patient recommended is the recumbent one, "during an operation on the right eye, as far more convenient even to those who possess the happy faculty of dextrously using the left hand."

Remarks on Ligatures for Arteries. By ALEX. H. STEVENS, M.D.

In this paper, after having made some common-place remarks on the different sorts of ligatures for arteries that have been employed, the object of which is to show that the old and common one is the best, the author says, "Perhaps we may soon hear of an operation for aneurism without tying the artery; but only surrounding it loosely with a ligature, the irritation of which would, it is believed, cause an effusion of lymph about and within the vessel, and gradually obstruct the transmission of blood through it." A crude and ill-founded speculative notion, which we heard, some years since, advanced on this side the Atlantic by a lecturer on anatomy and surgery in one of the London schools; but which we suppose will not be put in practice at the hazard of a patient's welfare.

A Case of Compound Fracture of the Os Femoris, which terminated favourably. By VALENTINE MOTT, M.D.

There is nothing remarkable in the history of this case.

A Case of Stricture in the Urethra, cured by an Operation. By Alexander Stevens, M.D.

In this case the patient had two strictures: one, two inches and a half from the orifice of the urethra, an inch in extent, "impenetrable to the finest probe, and almost as hard as bone;" another, about an inch further onward towards the bladder. The ordinary methods having been ineffectually employed, and the patient suffering great inconvenience; "the bladder remained constantly distended, and he was under the necessity of carrying a vessel to receive the urine which was constantly dribbling from the urethra;" an opening was made into the urethra, in the situation of the bulb: the lower stricture was then destroyed by caustic; and afterwards, because the man was impatient of the slowness of his cure, Dr. Stevens says, "I passed a probe into the meatus urinaris down to the stricture. The space between the end of the probe and that of a bougie passed upward, is more than three quarters of an inch. I laid open the urethra between them, cut away the hardened portions of it, passed a full-sized bougie into the meatus, past the strictures, and through the opening in perineo." The patient finally recovered.

Remarks on the supposed Effects of drinking Cold Water; illustrated by Cases which occurred during the Hot Weather of the Summer of 1818: *submitted to the Medical Society of the County of New-York.* By John Watts, jun. M.D.

This paper contains an account of some very interesting cases of disease, the value of which is much increased by the judicious remarks of the author. We shall give the first series of observations in his own words:

"During the last two days of June, and the first of July, 1818, the weather was excessively hot and dry: no rain had fallen in a long time, and the thermometer in the shade was as high as 92 or 93 degrees. In the course of those three days, thirteen persons were admitted into the New-York Hospital with apoplexy; all of them labouring under more or less strongly-marked symptoms of that disease, said to have been occasioned by imprudently drinking large quantities of cold water. They were generally common labourers, foreigners, who had very recently arrived in this country, some of them having landed only a few days before at Amboy. It was stated that they had been at work exposed to the sun all the morning, and that they had drank more than their usual quantity of ardent spirits; that after dinner they returned to their work, and, with the additional excitement produced by eating, felt an increasing thirst, which obliged them to go frequently to the pumps, and to drink very largely of cold water.

"The symptoms which occurred, (and in some of the patients there was an opportunity of noticing them from the commencement,) were a sudden pain in the stomach, followed by slight vomiting, giddiness of the head, and fainting; shortly after, deep sighing, and difficult breathing; a rattling of the throat, with a secretion of a thick glairy

mucus; the face was suffused with blood, and of a livid colour; the pulse was strong and full; the skin very hot and dry. In a short time after, coma supervened, and in some instances complete apoplexy, marked by stertorous breathing and loss of all voluntary motion: in most of them, tympanites occurred to a very great degree.

"The mode of treatment that seemed best adapted to this form of disease, was very large and repeated bleedings, stimulating enemata, and rubbing the whole surface of the body with aqua ammoniæ. This last application had a decidedly good effect in lessening the heat of the body and the comatose state of the patient, sometimes rousing him from an apparently fatal torpor. When the apoplectic symptoms had not yet supervened, laudanum, æther, and other stimulants, appeared to be beneficial; but their good effects were only momentary, for in a very short time afterwards apoplectic symptoms occurred. Several of the patients were bled to sixty, and one of them to eighty ounces, in the space of two hours. The recovery of this last patient was more complete and rapid than that of any of the others.

"As soon as blood was copiously withdrawn, the stertorous breathing ceased, and the senses were restored: immediately afterwards, a drink of cold water was asked for by the patient, and, when granted, was oftentimes instantly succeeded by vomiting; and the effect of it was highly beneficial, relieving the distended state of the stomach, and producing a general salutary impression. In some of the patients, symptoms of apoplexy returned after the second bleeding; and, in two cases, it was necessary to repeat the bleeding four times before the patients were completely relieved. On the next day, the breathing was remarked to be laborious, and in one instance it was with great difficulty that the patient could speak more than a few words at a time: he complained also of great pain and soreness of the right side; which, however, were soon relieved by the application of a blister to the affected part. Two of the thirteen patients died; one of whom, on examination, presented the following appearances:—The vessels of the brain extremely turgid; about five ounces of extravasated blood on the surface of the dura mater; some at the base of the brain; and the ventricles completely filled with serum; the lungs engorged, and of an appearance similar to the lungs of persons who have died of peripneumony; the heart red, and the pericardium much distended with a bloody-looking fluid; the stomach perfectly natural and quite empty.

"In all these cases, the action of the heart and arteries was greatly increased: in some of them it was excessively great, and the heart continued to palpitate very violently, even after the circulation at the wrist had been much reduced by copious bleeding. The heat of the body was likewise remarkably great, and in some instances continued for a long time after bleeding."

Those cases were popularly attributed to the drinking of cold water whilst the bodies of the patients were much heated; but Dr. Watts, from a comparison with the histories given by Drs. Rush, Jackson, and Currie, of the effects of that agent under such circumstances, doubts of the correctness of this opinion: he rather considers them

to have arisen from the influence of the ardent sun. The author, after this, adduces some remarks on the supposed influence of cold water taken into the stomach whilst the body is inordinately hot, of general application. He thinks that the ill consequences of it may be attributed to the quantity taken distending the stomach in an enormous degree, in the cases of accidents from it on record, rather than to its quality with respect to temperature; since water in moderate quantities from the coldest springs, and even ice, are commonly taken under such a state of the system, without injurious effects. In his physiological explanation of the effects of this agent, when it has really been deleterious, his notions nearly coincide with those of Dr. Currie.

Reflections on the Means of Recovery after Submersion, directed by the Humane Society of New-York. Addressed to the President and Directors. By A. H. Stevens, M.D.

The observations made in this paper are chiefly of local interest alone. Dr. Stevens however objects, with propriety, to the measures dictated by the Humane Society of New-York for the recovery of persons after submersion; especially the use of injections of tobacco-smoke into the intestines. We believe this is still sometimes employed in England; but those who have witnessed the use of it for strangulated hernia, cannot doubt but that it must be deleterious. Dr. Stevens also reprobates the almost exclusive attention inculcated respecting the application of heat to the body, especially when children are the patients. He argues for the great importance of measures adapted immediately to produce respiration; but we cannot approve the method for effecting this by "rolling the patient on a cask," when medical assistance is not at hand: the people could readily be taught a more effectual, as well as a less dangerous, means for producing alternate dilation and contraction of the thorax.

Cases of Fungus Hæmatodes of the Eye. By A. H. Stevens, M.D.

These cases do not possess sufficient interest to detain us on the present occasion: they are, however, of value as additions to the histories we previously possessed of the same species of disease, but are not of sufficient novelty to induce us to transcribe them.

A Case of circular Callous Ulcer at the Bottom of the Foot. By Valentine Mott, M.D.

We discern nothing in this case calculated to be of general application, or particularly interesting except to its patient.

A Singular Case of Disease of the Heart. Communicated by Dr. Peter C. Tappen.

An abstract of this case was given in the last Number of our Journal.

A Case of Hepatitis. By John Watts, jun. M.D.

This affection occurred in a man, 30 years of age, and terminated in suppuration. The subsequent is the most interesting part of the history. The purulent matter was evacuated by vomiting, and for some

time, to the amount of a pint ("of purulent and bilious-looking matter") in the twenty-four hours. After the rupture of the abscess, a slightly tonic method of treatment was adopted; but the patient getting worse, spitting more matter, and having hectic fever, cough, and increased pain in the region of the liver, it was changed for the antiphlogistic plan: tartarized antimony in nauseating doses; occasional loss of blood; a seton in the side; digitalis; and, at length, a light course of mercury. The patient finally recovered.

A Case of Apoplexy. By John Watts, jun. m.d.

The patient, a man aged 32 years, died five days after the attack of apoplexy. Copious and repeated abstraction of blood had been employed with temporary relief. On examination after death, "a large quantity of extravasated blood was found on the surface of the dura mater; the brain and its membranes were quite turgid; a considerable effusion was found in the left ventricle, and at the base of the brain. The inner table of the skull was affected by caries in different parts: about the centre of the left parietal bone, there was a caries of the size nearly of a sixpence, at which place a blood-vessel was eroded; accounting for the extravasation, and the singularity of the case."

A Case of Chorea Sancti Viti. By John Watts, jun. m.d.

This occurred in a gilder, whose occupation exposed him to the fumes of mercury. He had been for some length of time subject to convulsive muscular movements, and was affected with a slight degree of ptyalism. On his admission into the hospital, "his pulse being strong, full, and rather tense, sixteen ounces of blood were taken from his arm, and an active cathartic administered, which operated freely." The next day he was much better, and had not been disturbed the preceding night. He was directed to use the warm-bath, to have his body rubbed frequently with spirit of turpentine, and to take occasionally some cathartic medicine. Under this plan he continued to improve, until the 6th of February, when, in consequence, it is supposed, of being for some time exposed to cold, and getting his feet wet, his complaints returned with increased severity; the tremor and spasmodic affection of his body and limbs being so violent as to render it necessary, at times, to hold him on his bed: his pulse at this time was small, the perspiration profuse, and his strength much exhausted by the violence of the spasmodic paroxysms. He was put upon the use of wine, bark, and generous diet, and continued them for several days, but derived no benefit: the tincture of castor was then freely administered, and flannel bandages were very firmly applied to each of the extremities. The good effects of this last remedy, in controlling the convulsive affection of the muscles, was very apparent; for symptoms of chorea always returned when they were removed. Some power of voluntary motion was soon acquired, and in the course of a week he was able to walk. After taking laxative medicines, ammoniated tincture of valerian, and muriated tincture of iron, for some time, he was discharged cured.